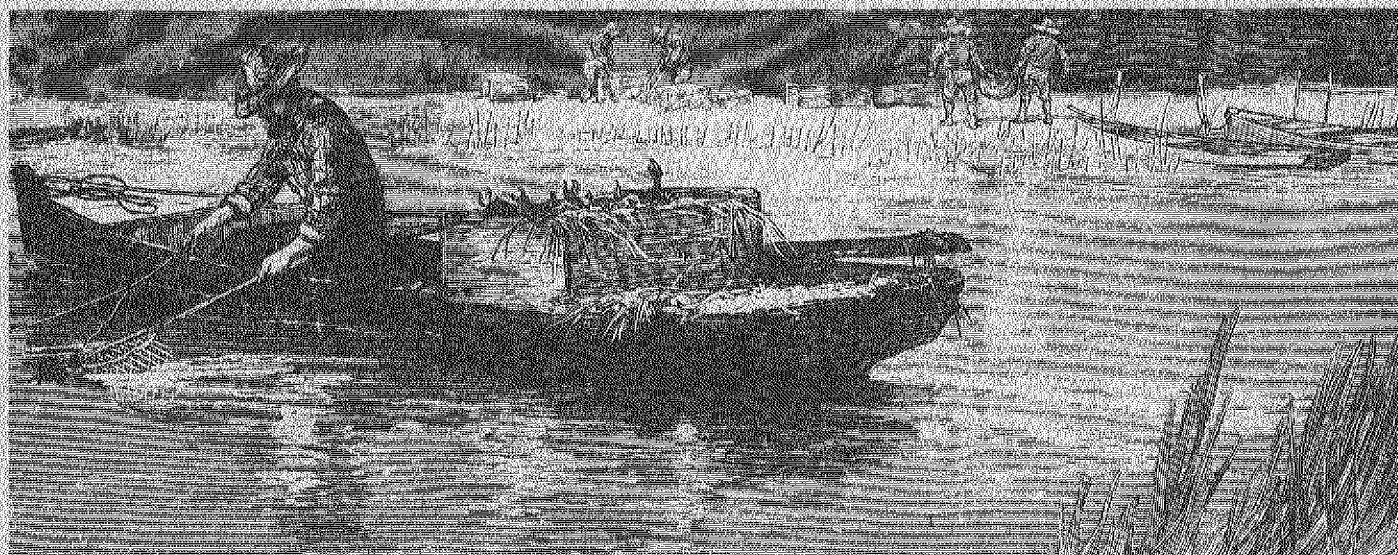


# ADVISORY HANDBOOK on **FISHING FINANCIAL MANAGEMENT**

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ADVISORY HANDBOOK  
ON  
FISHING FINANCIAL MANAGEMENT

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This Handbook was prepared by the National Sea Grant Marine Advisory Service Committee on Fishing Financial Management Programs which included:

Norman K. Bender, Chairperson	University of Connecticut
Lee F. Bowersox	National Marine Fisheries Service/NOAA
James Cato	University of Florida
Marion Clarke	University of Florida
J. E. Easley	North Carolina State University
Jeffrey Gunderson	University of Minnesota
Thomas J. Murray	Farm Credit Banks
Kenneth J. Roberts	Louisiana State University
Robert J. Shephard	Office of Sea Grant/NOAA
Frederick J. Smith	Oregon State University
Patricia F. Staley	University of Connecticut
David Swartz	University of Maryland
Frederick Lyda	University of Georgia

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# CONTENTS

	Page
Preface.....	ii
Chapter	
1 Financial Management for the Fishing Industry.....	1
2 Starting a Fishing Business.....	7
3 Management: One Day at a Time.....	20
4 Modifying a Boat.....	28
5 Replacing an Existing Vessel.....	38
6 Changing Fisheries.....	51
7 Financial Management for the Good Seasons.....	72
8 Dealing with Disaster.....	79
9 Getting Out of Fishing.....	97
Appendix	
A SGMAS Committee on Fishing Financial Management...	105
B Sea Grant Marine Advisory Service Offices: (National, States).....	106
C Sample Financial Forms	
1. Profit and Loss Statement.....	110
2. Cash Flow Statement (Annual).....	111
3. Cash Flow Statement (Long Term).....	112
4. Net Worth Statement.....	113
5. Description of Boat, Gear and Equipment.....	114
6. Partial Budget.....	118
7. Total Budget.....	119
D Fishing Record Books.....	120
E Fisheries Financial Management Bibliography.....	121

## PREFACE

The Advisory Handbook was initiated through the direction and authority of the National Sea Grant College Program Office and the Council of Sea Grant Directors.

I was asked to organize and chair a committee of Sea Grant Marine Economists and other financial management specialists responsible for developing a fishing financial management handbook to be used primarily by the Sea Grant Marine Advisory Service network as well as by other professionals working with the United States commercial fishing industry.

It was developed from the prospective of Marine Advisory field staff as they advise commercial fishers who have requested information on various aspects of a fishing business that have financial implications. The nine chapters provide an introduction to the process of financial management advising.

Some chapters contain references to Sea Grant publications available for use during this process. The appendices provide additional information covering: The Committee on Fishing Financial Management, Sea Grant Marine Advisory Service offices, sample financial management forms, fishing record books and a bibliography of Sea Grant's fisheries financial management publications.

The Handbook is not meant to be the final publication on this subject. Instead, its function is to serve as an

informational foundation for professionals searching for Sea Grant materials for use in their work with the fishing community. The notebook is designed to allow for inclusion of new and updated materials developed by Sea Grant economists.

There are numerous ways in which the Handbook can be utilized. Marine Advisory field offices may keep a copy for use as a reference book. It can be distributed to fisheries-related professionals like managers of fishing trade associations, cooperatives and development organizations, financial management specialists working for lending institutions and accounting firms and other people who advise the fishing industry. It can also serve as a resource book for in-service training programs for Marine Advisory staff and others working with the industry.

The term "fisher" is used throughout the text in place of "fisherman". Its use here reflects the increasing numbers of women working in the fishing industry as crewmembers and captains. Many fishing businesses involve an entire family working aboard the boat and in shoreside activities directly tied to the boat's harvesting operations (including financial decision-making). "Fishers" thus refers to the men and women who comprise the U. S. fishing industry.

ACKNOWLEDGEMENTS: The development of the Advisory Handbook required the cooperation of numerous people throughout the Sea Grant network as well as people in other organizations. I would like to express my appreciation to Marion Clarke and Robert Shephard for their encouragement and

support within the National Sea Grant College Program as the project was initially formulated and then carried out to completion. Victor Scotttron's and Lance Stewart's enthusiasm allowed me to devote a major portion of my time to working on the project. Dee Chambers' talents with the word processor enabled the Handbook to emerge in its present form. Pat Staley's editorial experience played the major role in developing the report's format. Eleanor Minikowski and Connie Fontaine also provided support at crucial times.

It was the efforts of the entire SGMAS Financial Management Committee that resulted in the creation of this report. It was a most satisfying experience to work with Lee Bowersox, James Cato, Marion Clarke, James Easley, Jeffrey Gunderson, Thomas Murray, Kenneth Roberts, Robert Shephard, Frederick Smith, Patricia Staley, David Swartz and Frederick Lyda. Committee members worked together in conceptualizing the Handbook and in writing the chapters in subcommittees of two or three.

It is the feeling of the Committee that this report represents both a benchmark in the development of marine economics advisory programs and a statement supporting further development of such educational materials.

Norman K. Bender

Chapter 1  
FINANCIAL MANAGEMENT FOR THE FISHING INDUSTRY

Norman K. Bender

Marion Clarke

This report was developed through the direction and authority of the National Sea Grant College Program Office and the Council of Sea Grant Directors. Fiscal resources to support the related meetings were provided by the individual programs of participating committee members.

The report provides information concerning fishing financial management educational programs developed by the National Sea Grant Program's Marine Advisory Service (MAS). It represents the collective efforts of a committee which included representatives of MAS economists, field staff, program leaders, Sea Grant directors, Office of Sea Grant, National Marine Fisheries Service and Farm Credit Service.

Its purpose is to provide financial management information to marine advisory agents and specialists and other professionals working with the commercial fishing industry in the United States. Marine economics specialists have developed educational programs covering various aspects of running a fishing business.

They include basic financial record-keeping, tax management techniques, evaluating the need for loans, determining an appropriate credit package, costs and returns data for specific fishing operations, and utilizing financial decision-

making techniques within a fishing business.

Educational programs have been used by fishing captains and crewmembers (and their spouses), tax preparers, accountants, lawyers, managers of fisher's associations (trade and marketing), and specialists in credit/financial assistance, economic development and fisheries management.

The United States commercial fishing fleet responded to implementation of the 200 nautical-mile fishery conservation zone (established on March 1, 1977) by growing from a national total of 174,000 fishers and 103,000 fishing boats and vessels in 1976 to 198,000 fishers and 115,000 boats and vessels in 1981<sup>1</sup>. That 24,000 additional fishers and 12,000 additional fishing boats and vessels joined the fleet during 1976-81 illustrates the need for financial management educational programs to train these new fishing crewmembers and captains.

Annual turnover in some sections of the fishing industry approaches 25% as fishers leave the fleet due to retirement, death or more lucrative employment opportunities elsewhere. The combination of rapid growth of the fleet and high annual turnover rates (entry into and exit from the industry) creates a continuing need to educate fishing captains, crewmembers and fishing-related professionals regarding various aspects of fishing financial management.

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<sup>1</sup>

Fisheries of the United States 1982, page 80, Washington, D.C.: U.S. Department of Commerce, NOAA, NMFS, Current Fishery Statistics No. 8300, April, 1983.



Changes in the economy affecting interest rates and credit terms, market conditions affecting demand for seafood and new federal and state tax regulations all influence the fishing industry. Successful fishers need to develop an understanding of the many factors influencing financial success or failure within their industry. They need to develop a framework for financial decision-making that allows them to understand new situations and utilize changing information that can result in more efficient decisions.

A 1977 report by the Atlantic States, Gulf States and Pacific Marine Fisheries Commissions identified major educational needs of the United States fishing industry. The report identified "education of commercial fishermen about finance, taxes, loans and establishment of cooperatives" as one of the nine priority educational topics.<sup>2</sup> The same document discussed the need for handbooks and manuals covering "interpretation of tax laws" and "credit sources applicable to the fishing industry and where such sources of credit can be obtained, with necessary guidance and assistance for execution of loans."<sup>3</sup>

These recommendations from the commercial fishing industry were obtained through a national fisheries survey and are based upon information collected in local hearings, regional meetings and a national fisheries conference.

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2

Page 5, A Report to the Congress: Eastland Fisheries Survey, Atlantic States, Gulf States and Pacific Marine Fisheries Commissions, May, 1977.

3

Page 6, Ibid.

Commercial fishing business management was identified as an important practical skill for the nation's fishing industry in a 1980 National Sea Grant Program report. Recommendations included "a review of current and proposed laws and regulations regarding the industry; organization, operation, importance and interrelationships of fishers' unions, cooperatives, associations, etc.; basic economics, including how prices are established, recordkeeping, settlements, cost and profit analysis, insurance and taxes."<sup>4</sup>

Marine Advisory Service field agents and specialists have identified fishing financial management as a major topical area for their fisheries educational programs. Advisory projects have been developed in this area since the early years of the Marine Advisory Service network that now cover the Atlantic, Great Lakes, Gulf of Mexico and Pacific Coasts of the United States.

#### MAKING MAXIMUM USE OF SEA GRANT'S FISHING FINANCIAL MANAGEMENT PROGRAMS

This Advisory Handbook was written with a functional Advisory/Extension education approach as opposed to a textbook format. Its chapters reflect types of questions received by Marine Advisory agents and specialists as they work with

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<sup>4</sup> Page 53, W. Yasso, Educational Needs of the U.S. Commercial Fishing Industry: A Report to the United States Senate by the National Sea Grant College Program, NOAA. National Sea Grant College Program, NOAA, U.S. Dept. of Commerce, Washing-

people already in the industry and people exploring the potential for full- or part-time employment as fishing crewmembers or captains of fishing boats and vessels.

The handbook includes eight narrative chapters that discuss the following situations faced by existing or potential fishing captains and crewmembers:

<u>Chapter</u>	<u>Topic</u>
2	Starting a Fishing Business
3	Management: One Day at a Time
4	Modifying a Boat
5	Replacing an Existing Vessel
6	Changing Fisheries
7	Financial Management for the Good Seasons
8	Dealing with Disaster
9	Getting Out of Fishing

Following the narrative chapters are appendices covering:

<u>Appendix</u>	<u>Topics</u>
A	<u>SGMAS Committee on Fishing Financial Management</u>
B	<u>Sea Grant Marine Advisory Service Offices:</u> (national, states)
C	<u>Sample financial forms</u> (1) Profit and Loss Statement (2) Cash Flow Statement (Annual) (3) Cash Flow Statement (Long Term) (4) Net Worth Statement (5) Description of boat, gear and equipment (6) Partial budget (7) Total budget
D	<u>Fishing record books:</u>
E	<u>Fisheries Financial Management Bibliography</u>

The narrative sections describe ways to incorporate financial management techniques and specific information into a fishing business. They provide an introduction to a decision-making process that is planned and well thought out as opposed

to a disorganized and arbitrary approach. The appendices contain sample financial forms and a listing of publications, available through the National Sea Grant Marine Advisory Service. Marine Advisory addresses and telephone numbers at the state and national levels are also provided if additional assistance and information is needed.

It was the committee's objective to inform Advisory Service Field Agents, and ultimately commercial fishing professionals, of the types of educational programs available from Sea Grant. Your comments and inquiries will assist Sea Grant marine economists in developing programs that benefit the commercial fishing industry.

## Chapter 2

### STARTING A FISHING BUSINESS

Kenneth J. Roberts  
Frederick J. Smith

For someone intent on becoming a commercial fisher, the lure of independence and working out-of-doors can divert attention from more critical elements of the decision. People unfamiliar with commercial fishing operations in their area--and even some who are familiar--often have a romanticized idea of the fishing industry. That doesn't mean seeking a less attractive profession. It does mean analyzing the business opportunities accurately and taking a more conscious and planned approach to starting a fishing business.

#### KEY WORDS

##### Cost and Return or Financial Budget

- a way to organize the expenses and income for your management use whether it be profitability of existing operations or some possible business change. The budget generally covers a one-year period without regard to when money is received and disbursed.

##### A Cash-Flow Budget

- focuses attention on the timing of money inflow and outflow in order to assist managers to decide whether sufficient funds will be available throughout the planning period to achieve business goals.

##### The Balance Sheet or Net Worth Statement

- is a concise portrayal in tabular form of what you own, the amounts owed to you, and the amount you owe to others. It reflects the situation in your business at a point in time. Thus, it can serve as the foundation from which many other financial analyses are developed.

#### ANALYSIS - THE BASIS OF A SUCCESSFUL DECISION TO START FISHING

Prospective fishers may already be aware of the fre-

quently expressed "free access" or "free entry" aspect of commercial fishing. There are, in fact, many barriers to entry. These barriers may not be legal in nature; however, their impact upon fishers can be quite strong. Potential barriers to be addressed when starting a fishing business include acquiring credit, meeting competition, and dealing with risk. They are all related to achieving a successful start in the fishing industry.

When prospective fishers analyze a fishery's potential to meet their personal financial goals, the above factors should be addressed. The prospects for earning a profit after repaying loans, overcoming the competition of other fishers and experiencing fluctuations in prices and environmental conditions have made commercial lenders cautious about extending credit to fishers.

Selecting a Fishery. Starting a successful fishing business requires choosing among alternative lifestyles and considering various fisheries which are able to provide the specific lifestyle and financial returns desired by the fisher. Lifestyle choices can involve choosing between inshore fisheries, which exist in local waters, versus offshore fisheries which may involve a significant need to travel, as well as issues relating to the crew size and year-round versus seasonal employment opportunities.

Fisheries pursued in local waters may permit more family contact, maintenance of ties to a preferred community and occasional involvement of family members in enhancing the

profitability of the business. There are also regional or offshore fisheries which would necessitate more travel, fewer opportunities for family participation, and require a full-time commitment to a commercial fishing business.

These are the basics of the lifestyle components that result from selecting a specific fishery. There are other factors fishers need to identify because all factors pertinent to the choice of a fishery ultimately produce results which affect the way a fisher lives (his lifestyle).

#### A FISHERY'S ABILITY TO GENERATE A SPECIFIC LEVEL OF INCOME

Obvious among many factors is the ability of the selected fishery to yield the income needed to maintain a preferred lifestyle. Though this is a difficult subject on which to acquire information, there is more help available now than ten years ago. Insight can be gained through inquiries of Sea Grant Programs' Advisory Services and research personnel. Often there are studies related to a specific interest. Financial budgets have been developed that illustrate costs and returns for specific fishing operations.

Other information is available from fishing associations, dockside fish buyers, financial assistance offices of the National Marine Fisheries Service, regional fishery management councils, commercial lenders, regional fishery development foundations, and occasionally, personnel with economic training on the staff of state fisheries agencies.

Making the Analysis. Once he has financial information, the fisher must blend it with his own knowledge into an analy-

sis which: a) produces an unbiased result, and b) can be communicated to others as a well-developed business opportunity. The term "unbiased" is not used here in a statistical sense, but rather to indicate that all parts of the analysis have a clearly identified and justified origin.

A well-organized analysis of the prospective fishing business need not involve a lengthy written proposal with minute details. While a long-written proposal would be suitable for a business with professional staff, suggesting that a fisher fit this mold would guarantee he would lose interest in the proposed business. The following listing and comments will provide prospective fishers with the rudiments of a financial analysis. An exhaustive guide to most fishing business calculations is the University of Alaska's Marine Advisory Bulletin Number 14 - "Financial Statements and Business Calculations for Commercial Fishermen," which is listed in the Appendix.

Analyzing Gross Income. The annual yield from fishing effort is measured here in dollar terms. To start the process of deriving an estimate, use the previously collected information to provide an estimate of how many days of fishing effort you could exert on the target species. This effort by species should produce a range of landings evident from the most recent five-year period.

Select a realistic annual yield for the size of vessel and gear you will use on each species. Distribute the yield over the calendar year so that the effect of monthly prices



and realities of cash inflow in the business becomes obvious. Consider price fluctuations from year to year even though you may be tempted to assume that in years of low production, price increases will be large enough to leave gross income unaffected.

Assure yourself that the marketing situation and outlook for the target species reflect favorable conditions. The multi-species aspect of fishery selection becomes evident when gross income is discussed. A fisher proposing to operate a fishing business may find less yield and market risk in multi-species endeavors than in harvesting a single species over the course of a year. However, this alone does not make such a business generate more gross income.

Multi-species oriented fishing businesses inherently require a high degree of managerial skills. This aspect may actually make a multi-species endeavor too ambitious for the relatively inexperienced, such as hired captains, a crewman about to start his own fishing business, etc. The section of this document on adding a fishery to an existing fishing business should be thoroughly reviewed by those likely to be a multi-species oriented fisher.

An important element of the gross income calculation is the relative price-taker position of fishers in the market. You may find it tempting to increase the ex-vessel price component of the gross income estimate due to optimism. Unless you are optimistic because you have a clearly defined plan to produce quality fish for a buyer willing to pay more,

it is doubtful that in spite of your optimism or faith in fishing trade associations, prices contrary to prevailing trends can be achieved!

Fixed or Overhead Costs. Overlooking the fixed costs of running a fishing business is often the reason for financial failure. Fixed costs are those costs not related to the volume of fish caught or days fished. They do not occur daily or after each trip. They are incurred even if the fishing vessel stays at the dock! Thus, they are easy to overlook in the analysis phase of starting a fishing business and easier yet to ignore when managing the business.

Fishers tend to use proceeds of a trip to pay all trip and share expenses, provide a living and then consider everything else. The fixed costs not only occur infrequently, but they also are relatively large and often hidden. Costs not experienced daily or on each trip are difficult, but essential, to incorporate when analyzing and managing the business.

The best examples of large lump-sum fixed costs are interest payments, insurance, legal fees and maintenance. Another fixed cost, which only periodically results in cash expenses, is immensely important. That is, depreciation. While it surely is an accounting or tax term, you must consider it in your business analysis because provision must be made for periodic replacement of the items which are depreciating. The business must provide these funds at some point or at least the records must reflect the economic health which justifies acquiring a loan to replace items.

Another part of this handbook addresses the replacement of fishing business equipment. Other sections deal with how to handle a year of high fishing success as well as the reverse situation (disasters). Calculation and knowledge of the role fixed costs play in a fishing business under these situations can improve the outlook for your business. All costs must eventually be covered for you to remain in business. This includes the cost of supporting you and those dependent on the business.

Variable Costs. Often referred to in fishing businesses as expenses or trip costs, these are the most visible and frequent drains on business gross income. Fuel, ice, supplies, repairs, bait, and crew share expenses of harvesting fish comprise the largest variable costs. All businesses should be able to cover such expenses in the short run before a fishing trip is justified.

Fishing should be thought of as a business where some trips will not pay the variable expenses. Fishing is a business in which it is certain that such instances will occur and the fisher still has to manage in a way that yields a net income annually. This is the reason for including a business analysis in plans for starting a fishing business. Money will be needed to pay for the eventual shortfall in income from a trip. An analysis should include recognition of this fact.

Allowance must be made to cover such trip losses from borrowed funds, credit from suppliers, or placement of additional personal funds into the business. This measure of

capital requirements to pay for operating expenses is as crucial as the estimation of long-term debt capital. A lender will expect to see both in your loan application.

Other Costs. A very real, yet difficult to explain, cost is the cost of funds and managerial skill to the business. Including such factors in the business analysis is more necessary for the fisher's personal decision than it may be for the lender.

The simplest way is to explain the concept as the cost for the opportunity of the business to use the owner's money and skill. Thus, these costs, termed opportunity costs, reflect foregone opportunities for your money and skills to earn income. The fishing business should generate enough net income to compensate you, preferably for all of the opportunity income foregone.

Cost and return budgets obtained from marine advisory programs often include this opportunity cost element. Projected income statements requested by lenders do not incorporate such costs. Since the fisher wants to be well off even after taking care of the lender, it pays to include opportunity costs in your business analysis. In so doing, you must face the issue of estimating a charge to the business for the opportunity to use your money and management skills.

Cash Flow. In spite of taking the correct steps outlined in the preceding analysis, you can be confronted by failure. Budgeting and related projections do not focus on the flow or timing throughout a year of expenses and receipts. You must

make a good attempt at identifying the inflow and outflow of funds into your business on a monthly basis. Otherwise, the amount and timing of receipts (inflow) and expenses (outflow) for the business could be mismatched. This would require in certain months sufficient cash on hand or short-term operating capital to cover periods when the inflow of funds is less than the outflow for expenses.

Examples of inflow funds are proceeds from: 1) the sale of your landings, 2) insurance claims, 3) sale of assets, etc. Outflow of funds are exemplified by: 1) fishing expenses, 2) crew payments, 3) insurance expenses, 4) purchases of depreciable items, 5) principal on debt, 6) interest on debt, and 7) family living expenses.

The value of the cash flow budget is its usefulness in comparing receipts to expenses. When done annually to estimate the monthly relationship of receipts and expenses, the availability of funds for loan repayment and the need for borrowing are evident. The cost of credit can, therefore, be managed in a manner which reduces the risk of this major cost of the 1980s from undermining the opportunity for business success.

Additional Factors. Once convinced of the fishery's potential to meet personal goals, you must persuade a lender. Contrary to what many people think, there are no cheap federal government programs to establish fishing businesses. The National Marine Fisheries Service has financial assistance offices in its regional offices. The specific programs and

associated terms are subject to change. Contacting the closest office is the best method to learn firsthand about the role the programs can play in starting a fishing business.

Regardless of the lender contacted, the preceding analysis format can serve as the core of an application. Additional information generally requested includes a personal history emphasizing career experiences and education, personal financial resources (a financial statement), and description of the assets to be purchased with the loan and insurance coverage.

The recommended procedure is to approach all lenders with an analysis and application reflecting a well-organized individual prepared to defend the loan request. Sample analysis budget and balance sheet forms are included here. All lenders have a commercial loan package which will be more complete and tailored to their needs. They should be willing to provide such a package for your inspection.

The Operation. The prospective fisher must decide whether to operate the business as a sole proprietorship, corporation, or partnership. Booklets are available from sources such as the Small Business Administration and Cooperative Extension Services that explain the advantages and disadvantages of each. Selection of one form over another does not assure success. There are no tricks to achieving success--it generally comes after making both a good start at organizing your fishing business and then managing it successfully.

Taking another person into a fishing business partnership or setting up a corporation with individuals may be a means of increasing capital availability and at the same time reduce the loan request from the conventional lender.

Recordkeeping. A final additional factor for consideration by people interested in starting fishing businesses is to plan for successful management from the start. Initially, this includes selecting a recordkeeping system which can give the information needed to make the business decisions exemplified by the following sections. There are many commercially produced recordbooks available from office supply stores which are acceptable. Recordkeeping books and systems specifically designed for fishing businesses are available from some Sea Grant programs. In addition, the Internal Revenue Service's Tax Guide for Commercial Fishermen has recommendations for recordkeeping systems.

All too often a person starting a fishing business pays little attention to future decision needs and ignores recordkeeping. A bookkeeper or accountant can relieve the fisher of the mechanical burden associated with keeping records. However, unless the fisher becomes familiar with the system and ways to get decision-oriented information from the accountant, he will have lost much of his managerial potential.

Starting a successful business is his real purpose in becoming a fisher. Business success is built upon a bed of information and records.

INCOME AND COST ESTIMATES  
(Profit and Loss)

Description of vessel: \_\_\_\_\_, Length, \_\_\_\_\_ beam,  
\_\_\_\_\_ main engine(s) hp., electronics \_\_\_\_\_

Estimated days fished: \_\_\_\_\_, catch & price by species  
\_\_\_\_\_ lb (\$/lb); \_\_\_\_\_ lb (\$/lb)

GROSS INCOME FROM FISH SALES \$ \_\_\_\_\_

VARIABLE EXPENSES

Fuel and oil	_____	
Provisions	_____	
Gear maintenance	_____	
Vessel maintenance	_____	
Ice	_____	
Bait	_____	
Supplies and equipment	_____	
Taxes, fees, assessments	_____	
Transportation	_____	
Crewshare	_____	
Other	_____	
Gross Income From Operations		\$ _____

FIXED EXPENSES

Insurance	_____	
Vessel maintenance	_____	
Moorage and haul-out	_____	
Warehouse and storage	_____	
Vehicle	_____	
Business administration	_____	
Professional fees	_____	
Travel and entertainment	_____	
Interest	_____	
Depreciation	_____	
Dues and licenses	_____	
Other	_____	
Net Income for Income Tax Reporting		\$ _____

CASH BALANCE

Net income		\$ _____
Plus: Depreciation		_____
Less: Principal payments	_____	
NET CASH BALANCE (living expenses, taxes, personal debt)		\$ _____



NET WORTH STATEMENT  
(Financial Statement)

\_\_\_\_\_ 19 \_\_\_\_\_

FINANCIAL STATEMENT

Name \_\_\_\_\_ Address \_\_\_\_\_  
Vessel Name \_\_\_\_\_ Zip \_\_\_\_\_

Assets of Fishing Business

Current Assets

Cash on hand \_\_\_\_\_  
Checking Account \_\_\_\_\_  
Receivables \_\_\_\_\_  
Fish Buyer(s) \_\_\_\_\_  
Insurance \_\_\_\_\_  
\_\_\_\_\_

Total Current Assets

\_\_\_\_\_

Fixed Assets

Vessel \_\_\_\_\_  
Equipment \_\_\_\_\_  
Gear \_\_\_\_\_  
Vehicles \_\_\_\_\_  
Gear Shed \_\_\_\_\_  
\_\_\_\_\_

Total Fixed Assets

\_\_\_\_\_

Total Assets

\_\_\_\_\_

Liabilities of Fishing Business

Current Liabilities

Payables \_\_\_\_\_  
Gear Supplier \_\_\_\_\_  
Fish Buyer(s) \_\_\_\_\_  
Boatyard \_\_\_\_\_  
\_\_\_\_\_

Bank Note

\_\_\_\_\_

Other Short-term Loans

\_\_\_\_\_

Total Current Liabilities

\_\_\_\_\_

Long-term Liabilities

Vessel Mortgage \_\_\_\_\_  
Bank Loan \_\_\_\_\_  
\_\_\_\_\_

Total Long-term Liabilities

\_\_\_\_\_

Total Liabilities

\_\_\_\_\_

Net Worth or Equity

\_\_\_\_\_

(Total assets minus total liabilities)

\_\_\_\_\_

## Chapter 3

### MANAGEMENT, ONE DAY AT A TIME

Frederick J. Smith

The phone rang just as Al was stepping off the porch. "Should I answer the darn thing or get to the boat? I'm late already." "Hello, Al. Sorry to call you so early, but thought I'd better tell you that you are two weeks late on your boat insurance. If you are short on cash, you can just make a quarterly payment."

Finally, on the way to the boat basin, Al noticed that the gas gauge was on "E." "Should I fill up right here at \$1.34 or should I go all the way out to Old Charlie's for \$1.14?"

At the boat at last, Al is upset because Pete, his crewman, forgot to pick up the hydraulic hoses. "Should I send him back or should we just work on something else today?"

The day goes on. Lots of decisions. Gathering different information. Trying to have some control over the business. Trying to get something done. This is management, one day at a time. All these little decisions may not seem important. The little bits of information may seem useless. A few minutes lost here and there will probably not make much difference.

But, it does add up -- and in a week or a month, it makes a big difference in the success of your business. Following are some principles and some ideas that might help improve a fisher's day-to-day management. It will take a little time and patience to implement these principles and ideas, but once done, a new management performance level will be reached.

Decision-Making. Decision-making can be divided into five steps:

1. Getting an idea or becoming aware of the need for a decision
2. Getting some information
3. Making an analysis

4. Implementing the decision

5. Taking responsibility for the results

Al became aware of the need for a decision when his insurance agent told him the premium was overdue. He got some information when the agent suggested quarterly payments. Al probably looked at his cash situation and asked what the quarterly payments would be. He may have even asked about other arrangements. Next, Al probably rolled the idea around in his head, estimated how much cash he would have left after the payment and whether it would be enough to get him through the next three months. Al was making his analysis. He then implemented the decision by writing the check and dropping it in the mail. All this probably took less than 10 minutes. Al followed the decision-making process, whether he realized it or not.

This decision probably deserved at least 10 minutes. Why? Because there was a lot at stake financially, because the cost of delaying or changing the decision after implementation would be high. And because this decision is made only quarterly.

Decision-making energy should be allocated carefully. Decisions with large financial impacts, decisions which are costly or difficult to change and infrequent decisions deserve a lot of time and energy. Of course, there are decisions that must be made on the spot, and even if the decision has a large financial impact and can't be changed, it must still be made quickly. If the seas are up and a fog is rolling in, a

fisher must decide quickly whether to finish pulling his pots or get into port. This decision won't wait for a long, careful analysis.

Al also became aware of the need for a decision when he noticed his gas gauge on "E." A quick comparison of gas prices at two different stations, the distances to these stations and from the stations to his boat, and the decision was implemented in a few seconds. This decision didn't need much time and effort because there was very little money involved and Al can try a different station next time if he wishes.

Individual decisions like this do not have a great impact upon the success of a business. Does this mean that a fisher shouldn't take time to think about them? No; one tank of gas here at \$1.34, a tank of gas there at \$1.32 and another at \$1.33 begin to add up and can become an important factor in his financial success. Yet, each time he buys gas he cannot justify 10, 20, or 30 minutes to go through the decision-making process.

When a fisher has frequently made decisions that individually have a small impact upon the business, but over a few weeks or months can have a large impact, he might set some guidelines. For example, if he finds a station with a lower price or there is a change in prices where he is trading, he could take some time to decide upon a gas-buying policy and stick with that policy, at least until another significant change occurs.

He would establish a policy of buying at the Coral Station because the price is low enough to justify the extra three miles of driving, and continue buying at the Coral Station until some new information comes along that would induce him to switch. He doesn't need to go through the decision-making process each time he fills the tank -- he just follows his policy. But he would change policy when conditions change.

How many decisions is a fisher making that could be made for him? Sometimes he may feel it is easier for him to make the small decisions. It is easier to decide where to buy the hoses, what color paint to use on the wheelhouse and when to take a coffee break.

Because it is easier, it is a temptation to always make these decisions himself. But, these are just the kinds of decisions he could delegate to his crewman, supplier, son, etc. He could be saving his decision-making time and energy for more important things; for those things that cannot be easily changed and will make a large financial impact upon his business. For these small decisions, he could provide some guidelines or policy, but once he has done this, he shouldn't waste time interfering in the decisions he has delegated.

#### TAKING CONTROL.

There are 24 hours in each day and seven days in a week. How many times has it been said, "I don't have enough time?". We all have the same time. Some people use it better than others. Management, one day at a time, means taking control.

of time. Making time work for you. Deciding what things are important for today, for this week and for this month. Today's activities can be planned in more detail than the week's, and the week's activities will be more detailed than the month's.

Make a list! Make a list for the day, make a list for the week. Make a list for the month. Some people prefer to use a calendar for the weekly or monthly list. The calendar helps anticipate time-consuming activities. You can get the little things out of the way soon. Keep a list near the kitchen table. Keep a list in a jacket pocket. Keep a list on the pickup dashboard. Keep a list in the wheelhouse. Soon you'll be in the habit of writing on these lists and looking at these lists. Some may never be used, but you will find that the one or two lists that you are using will help you take control of your time.

Delegate. Taking control also means delegating to others. It may be more fun to run the boat over to the fuel dock to top off the tanks, but it is more important for the fisher to pay a visit to the bank and check on that operating loan. The crew can take care of the fuel, but the captain should talk to the banker.

Set priorities. Finally, taking control means the fisher must set his own priorities each day. He shouldn't let others set his priorities. If his top priority is to repair the hydraulic system today, he has to take control when the fish plant manager wants him to come down and look at the new

header. He must make an appointment to see the header later if the hydraulic system has higher priority today.

This doesn't mean being stubborn or rigid. Rather, a fisher should share his priorities with others and be ready to change his priorities if there are good reasons. Taking control means accomplishing what he wants to accomplish each day. But it also is necessary to be flexible.

Information. Information is power. Information is half of decision-making. Decision-making skills are the other half. People are always gathering information, but much of the time they are not conscious of this. They see things, hear things, taste things, smell things, and feel things. Some of these things are worth writing about! Write about them. A fisher should always have paper and pencil handy. Sometimes it takes only a word or two, or a small sketch to help recall all the information. Sometimes it takes many words or even a photograph.

Some information is automatic. Whenever you buy something, or sell something, you get a piece of paper. This is information. Keep it.

Keep a basket or box near the place where you remove your jacket at night and make a habit of tossing your notes, photos, receipts, bills, etc., in this basket or box. Make it as easy as possible to capture these papers before they disappear into the clothes washer, the cat's litter, the furnace, or out the truck window. Set aside a special time each week to sort through the collected information and file it in some

folders, trays, bins, etc. Some of this information will become very valuable for making decisions, for filing reports and preparing other papers. The rest of it can be discarded after a few months.

Be open to new information. Sure, you already know a lot about commercial fishing, but if you tell others what you know, you are not learning anything new. Listen. Ask questions. The highliners, the fish plant manager, the bank president don't have a monopoly on valuable information. Listen to your crew, the kid at the fuel dock, the clerk in the store, etc. Listen, ask questions and take notes.

Be Creative. As a fisher makes his lists and takes control of his day, he should include some time to be creative. Creativity comes in many forms. It can be figuring a new way to route hydraulic hoses, it can be a new way to finance the insurance premium, it can be a new way to market fish, or it can just be a new way to fasten a pencil to a jacket. It is a fisher's creativity as much as his profitability that makes his business get better. Without this creativity, he is likely to slip behind the competition.

There is no secret formula for creativity. Perhaps the most important ingredient is skeptical acceptance of the status quo. Did Al really have to resort to quarterly payments? Perhaps he could have borrowed to pay the lower annual payment and saved some money. Did Al really need those new hydraulic hoses? Perhaps he could have modified the old hoses to fit the new pot hauler.



Sometimes creativity requires some quiet time. It is OK to sit and read. It is OK to sit and think. It is OK to sit and figure. Allow for this when you make your daily list.

One Day at a Time. A fisher should make each day work for him. Allocate decision-making time so the most important decisions get the most attention. Delegate decisions to others. Take control of time. Make lists, but make them realistic. Then don't let others change the lists. Make time to be creative. And don't lose information.

It is your business and you're in charge.

## Chapter 4

### MODIFYING A BOAT

J. E. Easley, Jr.  
Dave Swartz  
Fred M. Lyda

We've all seen many examples of attempts to "build a better mousetrap." The working of a competitive economy rewards those who do come up with a better product, a better (less expensive or more productive) way of doing something, and so on. Many of the first woodstove producers in the mid-seventies, for example, earned above-normal returns until many later producers (and some of those with improved products) got into the act.

Fishing is no different. A crab fisher installs a small hydraulic system on her boat to ease the chore of pulling pots, and finds that she can pull many more pots than previously. Soon, many others also install hydraulics, with modifications by individual fishers.

Fishers by nature and necessity, are entrepreneurs who are also skilled mechanics, welders and navigators. Thus, it is no accident that many fishers try various modifications in gear, rigging, and the power system on their vessels. Many of these modifications are briefly discussed below. Included is discussion of some tools that are helpful in analyzing the feasibility of some of the modifications.

#### KEY WORDS

##### Partial Budget (analysis)

- A budgeting tool that looks at only changes in costs and revenues as a result of some (usually relatively minor) change in business practices. With vessel modifications, not all the costs and revenues of operating the vessel are analyzed. The only changed costs and revenues analyzed are those that occur as a result of the modifications.

##### Benefit-Cost Ratio

- A ratio which gives the present value of net cash flow per dollar invested. It is simply the sum of discounted future cash flows minus the value of

the investment made today, divided by the value of today's investment. It adjusts for different size investments that one might be comparing; i.e., the net B/C ratio puts all potential investments on a common basis for making comparisons.

Net Present Value - A technique for comparing a flow of future income with the investment required now to generate that flow. Future income is discounted (converted to today's value - see Ch. 6 for more details), and the discounted income is compared to the investment required today.

Net Cash Flow Stream - Expected cash income less cash expenses for each future time period of the life of the vessel modification. You project cash income and expenses per period, and subtract expenses from income. This "stream" becomes the basis for analyzing the investment in the vessel modification.

Modifications for Cost Savings. Many modifications of a vessel are undertaken to reduce operating, or trip, costs. In the years immediately following the rapid increases in the relative price of fuel, for example, many of these modifications emphasized fuel savings. Modifications have included switching from gasoline engines to diesel, different engine sizes, alternative gearing and propeller systems, and different trawls, designed in part to reduce tow tension.

Fuel-reduction modifications are discussed in Hollin and Windh (1983). More minor modifications include experimenting with different vessel speeds, use of equipment to monitor fuel uses, and use of more and better information (weather data, for example) to improve the likelihood of locating fish, hence reducing at-sea search and running time. Major modifications

designed to reduce fuel use include experimentation with sail-assisted power. The reader will likely think of many more examples.

A fairly typical example of a modification designed to reduce costs is that of, "Do I replace my worn-out engine with gasoline or diesel?" In his 1982 Bulletin, "Diesels for Louisiana Skiffs," Roberts examines this decision, and generates the number of hours a diesel engine must be operated over a five-year period at different fuel prices to pay for itself. As the diesel engine costs more, but consumes less fuel, the question is, whether the future fuel savings pay for the larger investment in the diesel.

Roberts assumes a diesel to cost \$12,000 installed; a gasoline engine, \$3,800. The gasoline engine requires replacement in five years, hence the five-year period of analysis. Also, fuel savings depend upon the number of hours a vessel is operated each year, and the expected fuel savings per hour for the engines being compared.

The example assumes that the higher cost of the diesel of \$8,200 ( $\$12,000 - \$3,800$ ) is financed at 15 percent per year. The payment on \$8,200, if borrowed from a bank at 15 percent with monthly payments over five years, results in an annual payment of \$2,446. Hence, the value of fuel savings must equal \$2,446 per year for the fisher to break even. The table below converts this \$2,446 to numbers of hours per year for five years that a vessel must be operated (for different gasoline prices and fuel savings per hour) to break even.

Table Break-even hours of operation per year for five years.

Gasoline Price	1	Gallons saved per hour 2	3
(\$/gal.)			
\$1.20	2,038	1,019	679
\$1.30	1,882	941	627
\$1.40	1,747	874	582
\$1.50	1,630	815	544
\$1.60	1,529	764	510

Source: Roberts (1982, Table 1)

From the table, one can quickly see what number of hours per year a vessel would have to be operated to break even. For example, suppose the diesel that a fisher is considering would save two gallons per hour over the gasoline engine that it replaces. If the fisher has been paying \$1.30 per gallon for gasoline, then she must operate the vessel 941 hours per year for the fuel savings to repay her the \$8,200 higher outlay. Note that differences in maintenance have not been included, and it is assumed that diesel prices are less than gasoline prices. If diesel fuel were more expensive than gasoline, then the number of hours to break even would increase.

Most, if not all, of these examples have something in common: the fisher is considering investing now in a modification that will improve the vessel's net cash flow in the future (the dollars saved on fuel purchases). And before investing, the fisher asks, "Will it pay?" She may also be asking, if she is considering several alternative modifica-

tions, "Which will save me the most?" While you, as an agent, cannot answer these questions for any individual, you can discuss some tools helpful to the fisher in arriving at a decision. You also are likely to have information on expected performance of the modifications being considered. Manufacturers may have such information as well. And don't forget that other fishers may have some of the best information on similar modifications.

Once technical information is collected, the fisher must decide whether the modification will pay off, or which one has the greatest payoff. If the fisher is considering a simple modification, a partial budget analysis may suffice. That is, she summarizes all additional operating costs per year that might be associated with the modification, and all additional revenue (including cost savings such as reduced fuel usage). Her decision is then based on the net cash flow generated by the modification relative to the initial cost of the modification. An example of a partial budget analysis of vessel modifications required to change fisheries is included in Chapter Six, "Changing Fisheries."

An even better technique for analyzing the investment, especially when comparing different modifications, is the net benefit-cost ratio. This technique (or some version of net present value) is even more appropriate when the modifications have different expected useful lives. References cited more fully explain these techniques and an example of the use of the benefit-cost ratio is also included in Chapter Six,

"Changing Fisheries".

Modifications for Increased Productivity. Some vessel modifications are undertaken because they increase catch (or catch potentials) for a given time at sea. These may not directly reduce trip costs, but if they increase catch more than they might increase costs, then cost per pound of catch is reduced.

The use of hydraulics for pulling pots or traps is a good example. Using hydraulics increases the speed and reduces the physical effort with which a pot can be fished. Hence larger numbers of pots can be fished in a given day, which has happened in the North Carolina crab fishery. Other examples might include electric reels and larger numbers of smaller trawls being towed at once as opposed to towing a single large trawl (as is the case in the South Atlantic and Gulf shrimp fleets).

Reduction of undesirable by-catch by reducing the crew's on-board handling chores, may result in somewhat increased tow time per trip (or at least lower physical exertion by the crew). The gear originally developed by National Marine Fisheries Services as a turtle excluder device to insert into the bag of a trawl is one example.

Vessel modifications designed to increase productivity may, in some cases, be more difficult to evaluate than those designed to reduce costs. However, the techniques for evaluation are the same: the fisher must estimate the increased output per unit of time. She then converts that estimate into

a net cash flow stream (revenues less any additional cost outflows, per unit time) for the expected life of the modification. At this point she proceeds with the analysis just as she would had the net cash flow stream originated with a cost-saving investment.

Other Modifications. Other vessel modifications might include those for improving product quality (e.g. hold insulation), for changing product form, improving safety and/or crew comfort, and perhaps for simply improving the general appearance of the vessel. These modifications are even more difficult to evaluate than those in the previous section.

However, in the case of modifications undertaken to improve product quality, note that spoilage or other damage to the product may be reduced. This should translate into increased revenue. If the result of insulation is an overall improvement in freshness, somewhat higher prices may be paid, again resulting in increased revenue. On-board refrigeration systems might also be analyzed in this way, as well as a cost-saving (reduced ice usage) investment.

On-board processing equipment, such as a shucking line or freezing equipment, may improve the quality of product landed, but it also changes product form. The product landed will thus generally command a different price than landing fresh product. Analysis of these types of modifications require estimating those prices, the quantity of product to be handled, and translating into a stream of higher net cash flows. The analysis would then proceed as described earlier.



Modifications for safety and crew comfort may both improve the crew's productivity, but are difficult to measure. To the extent safety modifications reduce down time by reducing the rate of injuries, one might estimate some effect on cash flow (including changes in insurance premiums?). Modifications for comfort, on the other hand, may have an even more pervasive effect. The crew may be more productive and crew turnover may be reduced, but isolating these effects is difficult.

Finally, some modifications may be more consumption than investment item and hence should not be analyzed as an investment. Vessel appearance modification might be an example, assuming that the change does not significantly affect the value of the vessel. However, a modification just prior to putting a vessel on the market would represent more of an investment, if that modification was done to improve its marketability.

Without repeating the discussion, note that similar decisions exist for owners of on-shore facilities. Questions frequently posed are: "should I expand my processing plant?" or "should I add a processing line to my packing plant?", or "should I expand my freezer?"

Again, these can be analyzed by estimating the effect on the firm's net cash flow per period (year?), and then comparing those flows to the investment required. While these decisions can involve more information on inputs, product flows, etc., than some vessel decisions, the approach to

answering the question is the same. One simple example is included in the Thomas et al reference listed in the appendix.

### SPECIFIC MODIFICATIONS

- Berg, D. R. 1975. Hydraulics: Handy Helpmate on Small Fishing Boats. IMC-SG-75-19, UNC Sea Grant College Prog., N. C. State Univ., Raleigh, N. C.
- Hollin, Dewayne, and Steven R. Windh., 1984. Cutting Fuel Costs: Alternatives for Commercial Fishermen, TAMU-SG-84-504, Texas A&M Sea Grant College Program, College Station, Tex.
- Kreutzer, Conradin O., 1970. Electric Fishing Techniques (RIU-Z-70-006), Univ. of Rhode Island, Kingston, R.I.
- Roberts, Kenneth J., 1982. Diesels for Louisiana Skiffe (LSU-TL-82-002), Sea Grant College Program, Louisiana State Univ., Baton Rouge, La.
- Roberts, Kenneth J., and Raymond J. Rhodes. 1975. Gear and Economic Efficiency Results of a Sea Grant Twin-Trawl Demonstration in South Carolina (MIAU-Z-75-016), Sea Grant Office, Univ. of Miami, Coral Gables, Fla.
- Smith, Frederick J., 1982. Microcomputers and Programmable lators in Your Marine Business (OREXT-G-82-001), Sea Grant College Program, Oregon State Univ., Corvallis, Or.

### Investment Analysis Techniques

- Barry, Peter J. et. al. 1979. Financial Management in Agriculture. Danville, Illinois: The Interstate Printers & Publishers, 2nd ed., (general reference on capital budgeting techniques.)
- Thomas, F. B., T. M. Miller, N. B. Webb, and J. E. Easley, Jr., 1980. Manual of Seafood Processing and Marketing in North Carolina, UNC-SG-80-04, UNC Sea Grant College Prog., N.C. State Univ., Raleigh, N.C., pp. 87-94.

## Chapter 5

### REPLACING AN EXISTING VESSEL

Lee Bowersox  
Fred M. Lyda  
Thomas J. Murray

Each of us, at one time or another, has been confronted with the decision process which accompanies replacement of an asset such as a fishing vessel. The way we gather data for the decision and interpreting the gathered data is almost always reflected in the final result. Sometimes we catch ourselves making decisions without first having done our homework. Usually, we pay for those decisions with loss of quality, loss of direct income or loss of tax benefits.

#### KEY WORDS

##### Cash Flow

- Cash inflows (receipts from sale of products, loans, sale of assets, etc.) and cash outflows (payments for fuel, ice, gear, vessel mortgage, etc.) for a given business/personal situation.

##### Cash Flow Statement

- The examination of cash inflows and cash outflows via the use of a line/column format for a business cycle (usually 12 months) or a planning period (usually 5 years).

##### Debt Servicing Ability

- The ability of a debtor to generate, on a timely basis, enough funds, in addition to operating funds, to repay principal and to pay interest on all outstanding borrowings.

##### Pro Forma Income Statement

- A projected income statement for a future business cycle period (usually 12 months). Particularly helpful when examining effects of proposed changes or additions to existing enterprises.

Replacement of a fishing vessel should be based on a carefully thought-out plan which includes gathering information and analyzing all the necessary factors to enable a fisher to make a correct decision. Remember that in addition

to your past performance (historical records) and estimates of future performance, there are sources of relevant information which should be consulted.

These sources include, but are not limited to, potential lenders, a qualified tax consultant, state and/or federal statistical records, the regional fisheries management council and the regional NMFS financial services division, who may be able to help gather and interpret decision data.

#### SOME REASONS FOR REPLACEMENT

Time to Change. Worn out or fully depreciated equipment is a good reason for replacement. Since the selling price or trade-in value of an existing vessel is affected by its condition, a fisher should strive to keep the vessel in reasonably good mechanical condition and appearance even though its replacement schedule calls for its replacement within several months or several years.

Deserve Something Better. Perhaps the fisher's or hired captain's skill levels are increasing at a rate that justifies a more productive vessel. Generally this is a trend that is established over several seasons and gives time for a planned response. Care should be taken to differentiate between increased skills and random luck. Investment in a newer or larger vessel usually requires ten or more years to pay back and is too long term in nature for its basis to be founded in one short season.

Speaking of one short season or even a few good trips or

even one fantastic trip--in other words, a windfall--we all know how the old adrenalin starts pumping. A new pickup truck, or a new car or perhaps a new vessel come to mind.

For a fisher lucky enough to hit the big trip(s), and who's been planning replacement of a vessel, the best possible place to put the money is in a Capital Construction Fund (CCF). Dollars placed in the CCF will earn interest, and Federal Income Tax on the interest (if left in the account) and principal is deferred, if, and as long, as the CCF is invested in a new or used N.M.F.S. qualified replacement vessel.<sup>1</sup>

Dwindling Catch. Sometimes, if long-run decreasing stock trends dictate or if continually increasing competition dictates, a fisher will seriously consider replacement with a different capability -- in other words, a change in fisheries. The astute fisher will not get caught in a "have to" situation. He will recognize the trends early on, verify his suspicions by looking at state or federal catch statistics and vessel licensing records, then plan the change-over so that financial effects are not to his disadvantage.

Stock Management Decisions. At times, changes in laws or regulations dictate replacement. If inside fishing is being closely regulated or stopped, the fisher may be forced to opt for a larger vessel to enable him to go outside. The larger vessel may be required for safety and efficiency.

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<sup>1</sup> The CCF may also be used for qualified renovations to an existing vessel.

State regulatory agencies and regional management councils are sources of important decision inputs in this case.

Good Deal or No Deal. The last reason to consider replacement to be mentioned here is the "good deal." This is perhaps the only legitimate reason to consider replacement with short notice and without long-range prior planning. It is not, however, an excuse to ignore a careful analysis of all factors. Impulse purchases or trades can be costly in terms of financing charges and lost tax benefits. The savings in the "good deal" should be more than enough to offset such things as higher interest rates and reduced tax benefits. A few hours spent with a tax advisor on tax consequences could result in savings which make the "good deal" even better. Remember, if a thorough analysis fails to verify the "good deal", there should be no deal.

#### SIZE OR SHAPE

There are three basic alternatives which evolve from the previously listed situations. Each alternative carries more risk than the status quo. Because of this added risk, planning and analysis should be commensurate with the degree of risk involved.

Alternative #1 -- Replace with similar-size vessel and more power with similar capability. This is probably the least risky replacement decision. An analysis of past performance, estimates of future production, preparation of cash flow statements, pro forma income statement, consultation with

a tax advisor with specific applicability of a CCF (if one hasn't already been established) and finally, a formal application with a lender, should be all that is required to show the fisher and the lender that his decision is a correct one.

A NOTE OF CAUTION: Be sure that the final negotiated interest rate is approximately the same as that used in the cash flow statement. A couple of percentage points in the rate charged can drastically affect a fisher's cash position over a period of several years if his loan is sizeable.

Alternative #2-- Replace with a larger size vessel with an increase in horsepower; same fishery, but with increased capability. This decision has added risk and thus requires more investigation and planning than Alternative 1. The same decision analysis inputs as listed in Alternative 1 should be considered.

Additionally, the fisher should review catch trends in his fishery to determine if he can expect a larger share by simply moving to equipment with more capability. Other factors to consider are management plans and/or regulations enacted by regional fishery management councils or state regulatory agencies.

Alternative #3-- Change of type of vessel and change of fishery. This alternative carries with it the highest degree of risk and therefore deserves maximum attention and planning effort. Unknown or difficult-to-quantify variables abound. The fisher will be facing a change in catch techniques and a change in marketing his product. The number of changes he



faces between catch and sale of catch are too numerous to list.

Review the decision analysis input factors listed in Alternatives 1 and 2. Consider preparation of at least two Cash Flow statements: one for an estimate of what will develop under nominal circumstances and one for worst-case conditions. Under worst-case conditions, the cash flow should be positive or cash reserve (savings) should be sufficient to cover the deficit. The fisher should ask, if worst-case conditions exist for two consecutive years, will he survive financially.

#### TIMING THE REPLACEMENT

As previously noted, a decision should be based on several months, and preferably, several years of careful planning. If a fisher is comfortable with his decision to remain in his current fishery with the same or increased capability or with changing fisheries, the balance of the decision hinges on financial effects. His decision should include:

Tax Considerations. In most cases, replacement of an existing vessel is accomplished by using proceeds from the sale of the existing vessel as the downpayment for the new vessel. A fisher planning on this should first see an accounting or tax advisor.

Most people believe that the gain on the sale of their vessel will result in capital gains of which only 40% will be taxable. This is not generally the case. Usually the vessel being sold has been fully depreciated for income tax purposes

and the entire sales price (unless the vessel has been sold for more than its cost) must be reported as depreciation recapture subject to ordinary income tax rates. Depending on the size of the vessel, this could cost over half the sales price in taxes, both federal and state.

Using the Capital Construction Fund program can defer the tax effects. The fisher simply has to enter into a Capital Construction Fund agreement, set up a separate banking account and run the proceeds from the sale through the account to defer taxation of the gain.

He should consult a tax advisor early in the decision-making process and he should be aware of the Capital Construction Fund provisions.

Where the existing vessel is being retired, rather than being sold, use of the Capital Construction Fund for accumulating the downpayment and making mortgage payments for the new vessel is a must.

Financial Statements. Past and current Profit and Loss Statements (See Appendix C, Form 1) are an absolute must for the fisher who intends to impress prospective lenders. An accountant can help get these in order.

The single most important financial statement for the fisher are the Cash Flow Statements (see Appendix C, Forms 2 and 3). A replacement decision should be based on a long-term (5 years or more) cash flow statement (see Appendix C, Form 3). Great care should be taken to accurately prepare catch forecasts and associated income and expenses. There is

nothing more important in any business than cash flow. Since fishing is cyclical, there will naturally be a period (perhaps up to 4 or 5 months) when annual cash flow is negative.

If the long-term cash flow statement shows negative cash flow (not the typical annual cyclical negative flow) the fisher needs to reconsider his decision. Remember, too, that his best estimates of the future can be adversely affected by elements beyond his control. If his long-term cash flow illustrates a marginal existence, he may wish to consider other alternatives.

Should analysis and planning indicate a decision in favor of replacement, the fisher should set his schedule to take the best advantage of tax regulations, interest rates and other financial considerations.

#### SEEKING FINANCING

Once the fisher has decided to replace his existing vessel, an additional decision must be made whether to replace it with a newly constructed or used hull. In any event, pre-determine size, type, hull construction, and power plant needs before selecting an individual vessel. After this determination has been made, the fisher should approach a lender if financing is required. The time to approach a lender is when he starts shopping for the vessel or begins to consider construction.

With the adequate background information and records discussed previously, a lender can provide a very good idea of the amount and terms of financing that can be expected from

the institution.

The fisher should be certain, when approaching his lender, to outline as specifically as possible, using past records, his ability to support indebtedness. In fact, the amount of loan funds he is pursuing should be determined by a review of his past cash flow; therefore, verifying his operation's debt-servicing capabilities.

In effect, the vessel he purchases is worth what it can generate in net income, not in some pre-determined market value by a marine surveyor or the seller of the vessel.

A fisher should borrow only what he feels he can repay, not what a seller asks for a boat.

And, he should be certain that the vessel he is considering is designed, built, and locally recognized as suitable for the type of fishing activity he plans. The willingness of a lender to take a vessel as loan security will be partly contingent upon its marketability; i.e., that it is a suitable hull for local fishing conditions.

Use of the government's Fishing Vessel Obligation Guarantee Program may provide a lower rate and a longer term over which to repay a mortgage. Contact with the Regional Financial Services Division Office of the National Marine Fisheries Service can provide current rates and terms available under that program.

#### BUYING A USED VESSEL

Before the decision to buy a used vessel (over 5 net

tons) is made, a fisher should begin by obtaining an abstract of the vessel's document from the Coast Guard Documentation Office at the vessel's port of documentation. The Certificate of Ownership obtained will verify the ownership of the vessel and outstanding mortgages or liens.

The fisher should be careful to determine that there are no maritime liens outstanding. A maritime lien is similar to a mechanic's or materialman's lien in construction financing. They may arise from failure of the previous owner, or owners, to pay for materials and necessities supplied to the vessel, for repairs, etc. Care should be exercised if the vessel to be purchased has recently been repaired, provisioned, etc. Maritime liens outstanding at the time of the purchase are transferred to the purchaser with the vessel.

Certain other maritime liens (those for damages rising out of tort or unpaid wages for crew, etc.) may be superior to the purchaser's title. It is because of this potential that the buyer must investigate the likelihood of any such prior lien recorded against the vessel which has been used for an appreciable period of time.

The fisher should be sure he is not purchasing another person's liabilities. A diligent search should be made of possible lien claimants among the old crew of the vessel, suppliers in the local area, as well as the Coast Guard Documentation Office, and it should be determined that the prior vessel owner held adequate insurance to cover personal injuries, collision claims or third party claims.

The checking should include an exhaustive search of suppliers and fish houses where this boat customarily packed, as they may have liens against the vessel. As a precaution, the fisher may wish to do what many lenders do in financing used vessels; that is, require an affidavit from the seller that there are no liens of this type outstanding on the vessel being purchased.

#### BUILDING A VESSEL

Choosing a Shipyard. For a fisher who decides to replace an existing vessel with a newly constructed one, there are certain guidelines to follow in arranging for construction of a new vessel. He should make sure that the yard or yards he is considering are reputable and reliable. He should make sure that they have a track record for building not only sound vessels, but vessels completed within contract or construction periods. He should attempt, if possible, to have all the work done by one yard with the possible exception of sub-contracts with equally reputable firms for custom electronics and fishing gear fittings.

A loan agreement or construction agreement should spell out specific conditions of the construction as to the dollar value withdrawals and the anticipated dates of these draws. The fisher should withhold sufficient funds from the contractor to finish out a vessel should a problem arise. He should make periodic inspections to determine the remaining work to be done and the funds he has held. He should inquire whether the construction yard has acceptable builders' risk

insurance. It is important that he understand the viability of the boatyard he is contracting with, because in recent years adversity in the commercial fishing sector has resulted in some yard failures. It should be understood that his vessel, while under construction, may remain an asset of the boatyard. As such, it could be subject to repossession by the boatyard's creditors.

Getting a Loan. Whether new or old, if a replacement vessel requires financing, a careful determination of the loan amount and the terms involved with the loan should be reached prior to actual purchase of the vessel. A fisher should be careful when borrowing funds at variable interest rates, but scheduling only fixed payments.

For example, interest rate fluctuations in past years have in some cases meant that fixed monthly payments have involved no retirement of principal and have gone solely to the interest expense of the loan. The situation, in some cases, has resulted in fishers owing more on a vessel after two or three seasons than the original loan amount.

If a variable rate is obtained, a fisher would be wise to schedule fixed principal payments with fluctuating interest payments, to insure that debt amortization will continue.

When paying for a new vessel, a fisher may be wise to make accelerated payments as funds are available, to decrease the amount of principal outstanding, and, therefore, the interest rate accruing on it. Furthermore, concentrating payments up front on an intermediate-term loan (7 to 10 years)

will provide a cushion for the later years of the vessel's life when repair and maintenance expenditures typically increase.

In summary, the initial years offer tax savings. Using these tax savings to lower indebtedness may do much to decrease complications in the later years of the loan terms.

In advance, the fisher should discuss with his lender the scheduling of repayments and allowance for pre-payment. It is important that the lender understand the seasonality of the fisher's cash flow. If a fisher doesn't think his business conforms to monthly payments, he should say so at the offset. Most lenders will be willing to work with the fisher in adapting a repayment schedule, if the fisher will do this in advance and if he clearly explains this situation to the lender.



## Chapter 6

### CHANGING FISHERIES

J. E. Easley, Jr.  
James C. Cato  
Fred M. Lyda

Fishers must frequently make decisions to remain in a given fishery, or switch to another one. These may be seasonal, or temporary switches, or they may be longer term in nature. Abundances of the fish stock involved, relative prices of the different species, and expected catch are all likely to play roles in their decision. Their own experience and ability to catch different species may also play a role. They will likely possess many skills and knowledge developed in a given fishery which may or may not be transferable to a new fishery. If not, then they must allow time to develop new knowledge - time during which their catch and income will be reduced.

#### KEY WORDS

##### Opportunity costs

- Income of time foregone by choosing a given pursuit. For example, if I give up income from clamming in order to go shrimping, the clamming income given up is my opportunity cost of shrimping.

##### Partial budgeting

- A budgeting tool that looks at only changes in costs and revenues as a result of some (usually relatively minor) change in business practices. With vessel modifications, not all the costs and revenues of operating the vessel are analyzed. You analyze only changed costs and revenues that occur as a result of the modifications.

##### Cash flow

- A budget tool that enters only cash outlays and cash revenues per time period. Non-cash costs such as depreciation are not included. The cash flow generated by an asset is used to determine whether an investment will pay for itself, or if comparing several alternatives, which is the greatest payoff.

Net cash flow

- A statement that deducts cash expenses from cash income per time period.

Discounting present value

- The process of determining today's value (or present value) of an amount to be received at some future date; i.e., \$1 to be received 5 years from now is worth less than \$1 today (as today's equivalent could be invested at the going interest rate to just generate that \$1 in 5 years). The present value of a future stream of cash flow earned by a vessel is the sum of each year's net cash flow which has been discounted.

Net benefit-cost ratio

- A ratio which gives us the present value of net cash flow per dollar invested. It is simply the sum of discounted future cash flows minus the value of the investment made today, divided by the value of today's investment. It adjusts for different size investments that one might be comparing; i.e., the net B/C ratio puts all potential investments on a common basis for making comparisons.

SWITCHING GEAR

The decision surrounding a seasonal switch may involve only minor terminal gear modification. Many species are available only seasonally; hence many fishers routinely maintain gear for two or more fisheries. Because of poor catches or relatively low prices, a fisher may well debate an early exit from one fishery, and gear up for another (perhaps one that he has not entered before). These decisions may or may not be easy ones. If the fishery is a previously unexploited one in a given area, or a relatively new fishery, there may

not be information available to assist in the decision.

In the case of a more permanent switch to another fishery, the decision may involve significant modifications in the vessel, or even trading vessels. These are addressed elsewhere in this handbook, but are mentioned as vessel modifications or trades may be involved in decisions to change fisheries. These decisions are discussed below under the categories of seasonal changes and more permanent ones. Before proceeding to those sections, however, a brief review of costs is presented. It is important to understand which costs are relevant to the decision of a given type of change in fisheries.

#### UNDERSTANDING COSTS

There are many good references on the types of costs involved in fishing and their application to decision-making by fishers. Only a brief review is presented here to assist with the next sections.

In thinking of switching fisheries, the fisher is faced with the question, "Can I generate as much net income in the other fishery as I can in the one now fished?" And if costs of switching are involved (rerigging, lost fishing time, etc.), will the net income be sufficiently higher to justify the cost of switching? As a fisher faces questions like these, proper recognition of costs is important.

Perhaps the most important distinction that's relevant is between operating, or trip costs, and annual costs. (Avoid the use of "fixed costs" because, if the decision involves invest-

ing in another vessel, then all costs are, in a sense, variable).

The fixed vs. variable cost breakdown is appropriate for a vessel already owned and/or in service. However, many of the costs classified as fixed depend upon the size and/or value of a vessel (property taxes and insurance are two examples). Therefore, when a fisher is deciding which vessel to purchase, those future fixed costs will depend upon the size and/or value of vessel to be purchased and are also "variable" before she makes the actual purchase.

The reader probably has a good grasp of trip costs: these are the costs incurred as a result of fishing. Examples include fuel, groceries, ice, engine and vessel maintenance. Annual costs, on the other hand, are those costs incurred regardless of whether the vessel is fished or not. Examples include insurance premiums, property taxes, licensing fees, dockage charges, and perhaps depreciation. (As an aside, rather than use depreciation, a better estimate of the annual cost of using the asset might be the change in its market value. These estimates, however, are not easily obtained.)

Important in the decision to change fisheries will be estimating the costs of that change. These costs include the obvious costs of any new gear, rerigging, and the lost income from any down time required to make the change. This lost income is part of the fisher's opportunity cost of making the switch. In addition, opportunity cost of entering another fishery includes the net income given up from the one she is

currently in. That cost may be very low if catch is off and/or prices depressed. One might even argue that it is zero if she is not fishing at all. It may then be zero from the standpoint of the traditional fishery (if not fishing), but keep in mind that she has nonfishing income opportunities also.

#### SEASONAL, OR TEMPORARY, CHANGE IN FISHERIES

So, how do these costs matter? First, if the decision is to rerig for a different seasonal fishery, none of the costs that we refer to as annual costs matter (unless, of course, some special license is required). These do not affect this decision because the fisher must pay them anyway, regardless of which species she may fish for at a given time.

Here, she must estimate expected net income in the new fishery with other alternatives. That is, she compares expected net income from a given fishery - or even several potential fisheries - with what she gives up in the one she is currently fishing (or would traditionally fish). Added to this opportunity cost of the income given up would be the direct cost of new gear, rigging, etc. If the expected net income for the season exceeds her costs of entering the new fishery, then she may well choose to enter it.

Note that this assumes similar risks involving the fisheries being compared. If the new fishery is for some reason riskier, then she may require even higher expected income in the new fishery to compensate for those risks. An example is

the following:

Several North Carolina shrimpers were interested in deep water trawling for rock shrimp off the North Carolina coast after the close of the regular shrimp season (rather than moving south and around to the Gulf with other states' shrimp seasons.) Only heavier terminal gear and longer, heavier, tow lines would have been required.

Sample tows for these rock shrimp by the R/V DAN MOORE were made, and the catch rates examined to see whether the conversion to deep water trawling was economically feasible. Results showed that the catch rates were too low and market prices too low to justify the conversion to deep water trawling. That analysis is cited at the end of this chapter. Although it is not published, a copy can be provided to interested readers.

A variation on this decision is the following: suppose the gear, etc., required in the new fishery has an expected useful life of several seasons. It may not then be appropriate to allocate all that cost to a single season.

In this case, the estimate of expected catch may still be based on several seasons' average catch (and current prices), but the estimate of foregone income from the traditional fishery might now be based on average catch over more than one season. That is, just because the current season's catch is off, if the investment required to enter a new fishery is substantial, and has long-term use, then the fisher may well base her estimate of foregone income in the traditional fishery on

several seasons rather than just the current one. In this case, investment analysis principles will apply, and those are briefly discussed in the chapter "Modifying a Boat."

An example of a relatively minor modification, but one which may result in a vessel switching fisheries for more than one season, is given in Cato and Lawlor (pp. 13-16). The question analyzed is, "Would it pay to switch from mackerel fishing to swordfish longlining?" This conversion involves minimal physical changes in the vessel. With partial budgeting only changes in costs and revenues are analyzed. These changes were summarized as follows for larger mackerel vessels:

<u>Increased Costs</u>		<u>Decreased Costs</u>	
Bait	\$ 6,134	Fuel	(12,211 - 8,978) = \$ 3,233
Cyalume lights	10,191	Crewshare	(1,324 - 27,888) = 23,436
Batteries	889	Spotter plane	= 7,852
Groceries	3,440	Ice	(2,536 - 592) = 1,944
Longline r & m	6,023	Gear	(1,443 - 550) = 893
Longline		Net r & m	= 1,784
depreciation	3,168	Net depreciation	= 7,094

<u>Decreased Income</u>		<u>Increased Income</u>	
Lost mackerel sales	\$130,870	Swordfish sales	\$142,327
Loss effect	\$160,715	Gain effect	\$188,563
	Gain effect		\$188,563
	Loss Effect		<u>-160,715</u>
	Profit from change		<u>\$ 27,848</u>

The "gain effect" is the sum of increased income plus decreased costs. From that total is subtracted the "loss effect," or increased costs plus decreased income. The net

gain from the switch is \$27,848. Note that the longline depreciation represents one of the increased costs. Longline gear involves an initial outlay of \$9,505, and has been depreciated over three years. This example is one of a modification that is not very costly, involves more than one season, yet would not necessarily be considered a permanent switch. For explanation of the individual table entries, see Cato and Lawlor (1981).

#### PERMANENT CHANGE IN FISHERIES

The decision to change fisheries permanently may, as noted earlier, involve major modifications to the vessel or acquiring a different vessel. As discussed earlier in the case of a new vessel, all costs involved with entering the new fishery are variable, as they will depend upon the size vessel purchased. Hence, investment analysis for investment in alternative vessels is called for.

The fisher would first project cash flow (cash income minus cash costs per time period - usually a year) over the expected useful life of the vessels, and compare the discounted cash flows to the initial outlays. She would also want to do the same for her existing vessel, using its current value as the "initial outlay." It would be wise to recommend use of after-tax values and discount rates, since tax effects can be significant and every individual's tax situation is likely to be unique.

An example will help illustrate these ideas. Suppose a fisher has an older vessel with a remaining expected useful



life of five years. And suppose further that her best estimate of the net cash flow generated per year from this vessel is \$13,000, and that the vessel has a current market value of \$27,000. After much shopping around and talking with other fishers, she has decided that if she purchases a new vessel, the one most suited for her fishing costs \$78,000. Her best estimate of a reasonable expected net cash flow is \$17,000 per year, and the vessel has an expected useful life of 15 years. While this is a greatly simplified example, should she sell her old vessel and purchase the new one? How does she decide? (Note: Example 1 shows a vessel budget; Example 2 shows how to develop the discounted cash flow from the budget.)

Briefly, we could recommend that she compare net benefit-cost ratios for each of the vessels (treating the value of her existing vessel as a "cost"). The benefit-cost ratio compares the present value of future earnings to the outlay (or cost of an asset) required now to generate those future earnings. The ratio is simply,

$$\frac{\text{Present Value of Future Net Cash Flow}}{\text{Current Cost, or Investment}}$$

The present value of future benefits is simply the sum of net cash flows in future years discounted. Discounting simply gives us today's equivalent of some amount in a future year. Since we have assumed a constant flow per year, we can treat that flow as an annuity. This means that only one step is necessary to compute the present value. Had the flows each year been different, we would have to discount each year

separately, then add the discounted values.

The tables in Appendix 3 contain present and future value factors. If we use a 10 percent interest rate, the computations for the above examples are:

Existing Vessel

$$\text{Net B/C Ratio} = \frac{\$13,000 (3.791) - \$27,000}{\$27,000}$$

Note: 3.791 is the present value factor for  $i = 10\%$ , and for 5 years - Table IV.

$$= \frac{\$49,283 - 27,000}{\$27,000}$$

$$= .83$$

New Vessel

$$\text{Net B/C Ratio} = \frac{17,000 (7.606) - \$78,000}{\$78,000}$$

Note: Read 7.606 from Table IV for  $i = 10\%$ ,  $n = 15$  years

$$= \frac{\$51,302}{\$78,000}$$

$$= .66$$

The net benefit-cost ratio gives us the net cash flow returned to the vessel owner per dollar invested. Note that the original investment is subtracted from the numerator. Hence the numerator represents the present value of future cash flows over and above the original outlay. Dividing by the cost, or original outlay, simply gives us a measure of return per dollar invested. In our example above, the return per dollar of investment (treating the market value of her current vessel as an investment) is greater for the existing

vessel than for the new one. Unless the fisher has other reasons for purchasing the new vessel, she may well choose to continue using her existing vessel.

Fishers make these decisions all the time. What we may help with is taking some of the guesswork out of the decision (but not all of it).

The tools of financial analysis discussed in this chapter and handbook can be of assistance. Assistance is also provided by the many applied budgeting studies of specific fisheries. These studies provide information helpful to fishers in estimating expected returns in a new fishery.

As an example, there is currently much interest by fishers in longlining in the South Atlantic. Some of the interest stems from shrimpers looking at off-season alternatives. Budgeting study results that examine costs and returns to bottom longlining off-season will be forthcoming soon from the University of Georgia. Such studies, and the experience of fishers who have already made a transition to a new (or different) fishery provide valuable information for agents to use in either one-on-one work, or in more formal settings such as workshops.

## REFERENCES

NOTE: Many applied budgeting studies of specific fisheries have been published by various Sea Grant and other University researchers over the years. Most of these tend to be specific to a given area and no attempt is made to summarize all of these studies here. However, some examples are shown below (which are also cited in text) of studies that are available. These also provide applications of some of the decision-making tools discussed above. Agents are also likely to be aware of those already published that are relevant to fishers in their areas.

Roberts, Kenneth J., 1979. Planning to Buy a Shrimp Boat? Some Things to Consider First. Sea Grant Pub. LSU-TL-79-005. Louisiana State Univ., Baton Rouge, LA.

Cato, James C. and Frank J. Lawlor. 1981. Small Boat Longlining for Swordfish on Florida's East Coast: An Economic Analysis. Univ. of FL Mar. Adv. Bull. MAP-15, Gainesville, FL.

\_\_\_\_\_. 1973. Fishing Business Management and Economic Information. Oregon State University (SGNET No. ORESU-G-73-003).

Smith, Frederick J., 1975. The Fisherman's Business Guide. Camden, Maine: International Marine Publishing Company.

\_\_\_\_\_. 1973. Understanding and Using Marine Economics Data Sheets. Oregon State University (SGNET No. ORESU-G-73-005).

### Unpublished

Easley, J.E., Jr. "The Economic Feasibility of a Commercial Rock Shrimp Fishery Offshore North Carolina: A Preliminary Analysis." Unpublished manuscript, Dept. Econ. & Bus., N.C. State Univ., Raleigh, N.C.

Lyda, Fred M. "Economics of Bottom Longlining as a Supplement to Shrimping," Unpublished manuscript, Univ. of Ga. Mar. Ext. Ser., Athens, GA.

# VESSEL BUDGET EXAMPLE

Suppose a fisher is interested in investing in a new 35' wooden hull for shrimp trawling and crab potting. Suppose she has estimated the total cost of the vesesel to be \$28,000, broken down as follows: hull, \$10,000; diesel, \$11,000; and electronics and rigging, \$7,000 (includes 400 crab pots). The fisher expects to shrimp 26 weeks per year, and crab 22 weeks per year. Her expected catch is 13,500 pounds of shrimp (@ \$1.75 per pound) and 8,500 pounds of crabs (@ \$.18 per pound). Her total revenue thus is \$23,625 from shrimping and \$1,530 from crabbing, or \$25,155 from the combined operations.

She estimates her costs as follows:

## Annual Overhead Costs

Depreciation: Hull.....	\$ 667
Engine & Rigging.....	1,500
Electronics.....	600
	<hr/>
Total depreciation.....	\$ 2,767
Interest on investment (15% of 14,000).....	2,100
Dock rental.....	70
Licenses.....	30
Property tax.....	140
Insurance.....	500
	<hr/>
Total Overhead	\$ 5,607

## Variable Costs

Vessel repairs & maintenance.....	1,000
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Variable Costs continued

Engine repairs & maintenance.....	1,000
Fuel (4,800 gals. @ \$1.19).....	5,712
Galley.....	500
Bait.....	500
Net Repairs.....	250
Miscellaneous.....	500
Crewshare [=1/2 (sh. rev. - trp. costs) - 10% to captain].....	7,273

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Total variable costs.....\$ 16,735

Gross Revenue.....\$ 25,155

Less: Overhead costs..... 5,607

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\$ 19,548

Less: Variable Costs..... 16,735

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Net Return to Management and Labor.....\$ 2,813

After computing overhead and variable costs, and deducting these gross returns, we have a net return to management and labor of \$2,813. This represents roughly a 10 percent before-tax return to management and labor.

# CASH FLOW EXAMPLE

Suppose we want to evaluate the investment of \$28,000 in the new 35' shrimp and crabbing vessel. What we would like to base our evaluation on is the cash flow generated by the vessel's use. The cash flow differs from our previous budget in that several items in that budget do not represent cash flow items. What are some of those?

Let's assume that we start with the outlay for the vessel, and that we operate it the expected 48 weeks the first year. The cash expenses are variable costs plus overhead costs that actually represent cash outlays.

	<u>Outgoing</u>	<u>Incoming</u>	<u>Net</u>
Year 0	28,000	0	- 28,000
Year 1	16,735 + 740	25,155	7,680
Year 2	17,475	25,155	+ 7,680
Year 3	17,475	:	:
:	:	:	:
:	:	:	:
Year 5	20,475	:	+ 4,680
Year 6	17,475	:	+ 7,680
:	:	:	:
:	:	:	:
Year 10	35,475	:	- 10,320
Year 11	17,475	:	+ 7,680
:	:	:	:
:	:	:	:
Year 15	17,475	25,155 + 7,500	15,180

Note that outgoing, or cash expenses, are assumed constant through year 4. At the end of year 5, the electronics are replaced for an additional cash outlay of \$3,000. Similarly, at the end of year 10, the electronics are again re-

placed, as are the engine and rigging (\$3,000 again plus \$15,000). These are added to the usual outlays of \$17,475. Finally, note that revenue is assumed constant over the 15 years, with an additional \$7,500 in salvage value at the end of the period.

Now that we've computed the net cash flow, in order to look at the net present value of that cash flow, we simply have to discount that stream of revenue. The computations are as follows:

<u>Year</u>	<u>Net Cash Flow</u>	<u>Present Value Factor (%14%)</u>	<u>Discounted Cash Flow</u>
0	-28,000		-28,000
1	7,680	.877	6,735
2	7,680	.769	5,906
3	7,680	.675	5,184
4	7,680	.592	4,547
5	4,680	.519	2,429
6	7,680	.456	3,502
7	7,680	.400	3,072
8	7,680	.351	2,696
9	7,680	.308	2,365
10	-10,320	.270	-2,786
11	7,680	.237	1,820
12	7,680	.208	1,597
13	7,680	.182	1,398
14	7,680	.160	1,229
15	15,180	.140	2,125

Net Present Value = \$ 13,819

One decision rule says that if the discount rate adequately reflects the investor's opportunity cost of capital, then she invests in that project with the greatest net present value. If the discount rate reflects her best use of funds (adjusted for risk), then she invests if net present value is greater than zero. In this case, the net present value of \$13,819 tells us that this individual will earn that much more



on the vessel investment than if she invested her \$28,000 at 14 percent yield over the 15-year life of the investment. Note, however, that one should consider several options before investing.

TABLE 1  
 Future Value of \$1.00 at End of Period N  
 $V_N = \$1(1+i)^N$

n	.5%	1%	1.5%	2%	2.5%	3%	3.5%	4%	5%	6%
1	1.005	1.010	1.015	1.020	1.025	1.030	1.035	1.040	1.050	1.060
2	1.010	1.020	1.030	1.040	1.051	1.061	1.071	1.082	1.103	1.124
3	1.015	1.030	1.046	1.051	1.077	1.093	1.109	1.125	1.158	1.191
4	1.020	1.041	1.061	1.082	1.104	1.126	1.148	1.170	1.216	1.262
5	1.025	1.051	1.077	1.104	1.131	1.159	1.188	1.217	1.276	1.338
6	1.030	1.062	1.093	1.126	1.160	1.194	1.229	1.265	1.340	1.419
7	1.036	1.072	1.110	1.149	1.189	1.230	1.272	1.316	1.407	1.504
8	1.041	1.083	1.126	1.172	1.218	1.267	1.317	1.369	1.477	1.594
9	1.046	1.094	1.143	1.195	1.249	1.305	1.363	1.423	1.551	1.690
10	1.051	1.105	1.161	1.219	1.280	1.344	1.411	1.480	1.629	1.791
11	1.056	1.116	1.178	1.243	1.312	1.384	1.460	1.539	1.710	1.898
12	1.062	1.127	1.196	1.268	1.345	1.426	1.511	1.601	1.796	2.012
13	1.067	1.138	1.214	1.294	1.379	1.469	1.564	1.665	1.886	2.133
14	1.072	1.149	1.232	1.319	1.413	1.513	1.619	1.732	1.980	2.261
15	1.078	1.161	1.250	1.346	1.448	1.558	1.675	1.801	2.079	2.397
16	1.083	1.173	1.269	1.373	1.485	1.605	1.734	1.873	2.183	2.540
17	1.088	1.184	1.288	1.400	1.522	1.653	1.795	1.948	2.292	2.693
18	1.094	1.196	1.307	1.428	1.560	1.702	1.857	2.026	2.407	2.854
19	1.099	1.208	1.327	1.457	1.599	1.754	1.923	2.107	2.527	3.026
20	1.105	1.220	1.347	1.486	1.639	1.806	1.990	2.191	2.653	3.207
25	1.133	1.282	1.451	1.641	1.854	2.094	2.363	2.666	3.386	4.292
30	1.161	1.348	1.563	1.811	2.098	2.427	2.807	3.243	4.322	5.743
40	1.221	1.489	1.814	2.208	2.685	3.262	3.959	4.801	7.040	10.286
50	1.283	1.645	2.105	2.692	3.437	4.384	5.585	7.107	11.467	18.420

(continued)

TABLE I Continued

n	7%	8%	9%	10%	12%	14%	16%	20%	25%
1	1.070	1.080	1.090	1.100	1.120	1.140	1.160	1.200	1.250
2	1.145	1.166	1.188	1.210	1.254	1.300	1.346	1.440	1.562
3	1.225	1.260	1.295	1.331	1.405	1.482	1.561	1.728	1.953
4	1.311	1.360	1.412	1.464	1.574	1.689	1.811	2.074	2.441
5	1.403	1.469	1.539	1.611	1.762	1.925	2.100	2.488	3.052
6	1.501	1.587	1.677	1.772	1.974	2.195	2.436	2.986	3.815
7	1.606	1.714	1.828	1.949	2.211	2.502	2.826	3.583	4.768
8	1.718	1.851	1.993	2.144	2.476	3.853	3.278	4.300	5.960
9	1.838	1.999	2.172	2.358	2.773	3.252	3.803	5.160	7.451
10	1.967	2.159	2.367	2.594	3.106	3.707	4.411	6.192	9.313
11	2.105	2.332	2.580	2.853	3.479	4.226	5.117	7.430	11.462
12	2.252	2.518	2.813	3.138	3.894	4.818	5.936	8.916	14.552
13	2.410	2.720	3.066	3.452	4.363	5.492	6.886	10.699	18.190
14	2.579	2.937	3.342	3.797	4.887	6.261	7.988	12.839	22.737
15	2.759	3.172	3.642	4.177	5.474	7.138	9.266	15.407	28.421
16	2.952	3.426	3.970	4.595	6.130	8.137	10.748	18.488	35.527
17	3.159	3.700	4.328	5.054	6.866	9.276	12.468	22.186	44.409
18	3.380	3.996	4.717	5.560	7.690	10.575	14.463	26.623	55.511
19	3.617	4.316	5.142	6.116	8.613	12.056	16.777	31.948	69.389
20	3.870	4.661	5.604	6.727	9.646	13.743	19.461	38.338	86.736
25	5.427	6.848	8.623	10.835	17.000	26.462	40.874	95.396	264.698
30	7.612	10.063	13.268	17.449	29.960	50.950	85.850	237.376	807.794
40	14.974	21.725	31.409	45.259	93.051	188.883	378.721	1469.772	7523.164
50	29.457	46.902	74.358	117.390	289.002	700.233	1670.704	9100.438	70064.923

TABLE II  
Present Value of \$1.00 Received at End of Period N  
 $V_0 = \$1(1+i)^{-N}$

n	.5%	1%	1.5%	2%	2.5%	3%	3.5%	4%	5%	6%
1	.995	.990	.985	.980	.976	.971	.966	.962	.952	.943
2	.990	.980	.971	.961	.952	.943	.934	.925	.907	.890
3	.985	.971	.956	.942	.929	.915	.902	.889	.864	.840
4	.980	.961	.942	.924	.906	.888	.871	.855	.823	.792
5	.975	.951	.928	.906	.884	.863	.842	.822	.784	.747
6	.971	.942	.915	.888	.862	.837	.814	.790	.746	.705
7	.966	.933	.901	.871	.841	.813	.786	.760	.711	.665
8	.961	.923	.886	.853	.821	.789	.759	.731	.677	.627
9	.956	.914	.875	.837	.801	.766	.734	.703	.645	.592
10	.951	.905	.862	.820	.781	.744	.709	.676	.614	.558
11	.947	.896	.849	.804	.762	.722	.685	.650	.585	.527
12	.942	.887	.836	.788	.744	.701	.662	.625	.557	.497
13	.937	.879	.824	.773	.725	.681	.639	.601	.530	.469
14	.933	.870	.812	.758	.708	.661	.618	.577	.505	.442
15	.928	.861	.800	.743	.690	.642	.597	.555	.481	.417
16	.923	.853	.788	.728	.674	.623	.577	.534	.458	.394
17	.919	.844	.776	.714	.657	.605	.557	.513	.436	.371
18	.914	.836	.765	.700	.641	.587	.538	.494	.416	.350
19	.910	.828	.754	.686	.626	.570	.520	.475	.396	.331
20	.905	.820	.742	.673	.610	.544	.503	.456	.377	.312
25	.883	.780	.689	.610	.539	.478	.423	.375	.295	.233
30	.861	.742	.640	.552	.477	.412	.356	.308	.231	.174
40	.819	.672	.551	.453	.372	.307	.253	.208	.142	.097
50	.779	.608	.457	.372	.291	.228	.179	.141	.087	.054

(continued)

TABLE II Continued

n	7%	8%	9%	10%	12%	14%	16%	20%	25%
1	.935	.926	.917	.909	.893	.877	.862	.833	.800
2	.873	.857	.842	.826	.797	.769	.743	.694	.640
3	.816	.794	.772	.751	.712	.675	.641	.579	.512
4	.763	.735	.708	.683	.636	.592	.552	.482	.410
5	.713	.681	.650	.621	.567	.519	.476	.402	.328
6	.666	.630	.596	.564	.507	.456	.410	.335	.262
7	.623	.583	.547	.513	.452	.400	.354	.279	.210
8	.582	.540	.502	.467	.404	.351	.305	.233	.168
9	.544	.500	.460	.424	.361	.308	.263	.194	.134
10	.508	.463	.422	.386	.322	.270	.227	.162	.107
11	.475	.429	.388	.350	.287	.237	.195	.135	.086
12	.444	.397	.356	.319	.257	.208	.168	.112	.069
13	.415	.368	.326	.290	.229	.182	.145	.093	.055
14	.388	.340	.299	.263	.205	.160	.125	.078	.044
15	.362	.315	.275	.239	.183	.140	.108	.065	.035
16	.339	.292	.252	.218	.163	.123	.093	.054	.028
17	.317	.270	.231	.198	.146	.108	.080	.045	.023
18	.296	.250	.212	.180	.130	.095	.069	.038	.018
19	.277	.232	.194	.164	.116	.083	.060	.031	.014
20	.258	.215	.178	.149	.104	.073	.051	.026	.012
25	.184	.146	.116	.092	.059	.038	.024	.010	.004
30	.131	.099	.075	.057	.033	.020	.012	.004	.001
40	.067	.046	.032	.022	.011	.005	.003	.001	.000
50	.034	.021	.013	.009	.004	.001	.001	.000	.000

TABLE III  
Future Value of \$1.00 Per Period for N Periods

$$V_N = \$1 \left[ \frac{(1 + i)^N - 1}{i} \right] = USFV_{1, N}$$

n	.5%	1%	1.5%	2%	2.5%	3%	3.5%	4%	5%	6%
1	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2	2.005	2.010	2.015	2.020	2.025	2.030	2.035	2.040	2.050	2.060
3	3.015	3.030	3.045	3.060	3.075	3.091	3.106	3.122	3.152	3.184
4	4.030	4.060	4.091	4.122	4.153	4.184	4.214	4.246	4.310	4.375
5	5.050	5.101	5.152	5.204	5.256	5.309	5.362	5.416	5.526	5.637
6	6.076	6.152	6.230	6.308	6.388	6.468	6.550	6.633	6.802	6.975
7	7.106	7.214	7.323	7.434	7.547	7.662	7.779	7.898	8.142	8.394
8	8.141	8.286	8.432	8.583	8.736	8.892	9.052	9.214	9.549	9.897
9	9.182	9.369	9.559	9.755	9.956	10.159	10.368	10.583	11.027	11.491
10	10.228	10.462	10.703	10.950	11.201	11.454	11.731	12.006	12.578	13.181
11	11.279	11.567	11.863	12.169	12.483	12.808	13.142	13.486	14.207	14.972
12	12.336	12.683	13.041	13.412	13.796	14.192	14.602	15.026	15.917	16.870
13	13.397	13.809	14.237	14.680	15.140	15.618	16.113	16.627	17.713	18.882
14	14.464	14.947	15.450	15.974	16.519	17.086	17.677	18.292	19.599	21.051
15	15.537	16.097	16.682	17.293	17.932	18.599	19.296	20.024	21.579	23.276
16	16.614	17.258	17.932	18.639	19.380	20.157	20.971	21.825	23.657	25.673
17	17.697	18.430	19.201	20.012	20.865	21.762	22.705	23.698	25.840	28.213
18	18.786	19.615	20.489	21.412	22.386	23.414	24.500	25.645	28.132	30.906
19	19.880	20.811	21.797	22.841	23.946	25.117	26.357	27.671	30.539	33.760
20	20.979	22.019	23.124	24.297	25.545	26.870	28.280	29.778	33.066	36.786
25	26.559	28.243	30.063	32.030	34.158	36.459	38.950	41.646	47.727	54.865
30	32.280	34.785	37.539	40.568	43.903	47.575	51.663	56.085	66.439	79.058
40	44.159	48.886	54.268	60.402	67.403	75.401	84.550	95.026	120.800	154.762
50	56.645	64.463	73.683	84.579	97.484	112.797	130.998	152.667	209.348	290.336

(continued)

TABLE III Continued

n	7%	8%	9%	10%	12%	14%	16%	20%	25%
1	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2	2.070	2.080	2.090	2.100	2.120	2.140	2.160	2.200	2.250
3	3.215	3.246	3.278	3.310	3.374	3.440	3.506	3.640	3.813
4	4.440	4.506	4.573	4.641	4.779	4.921	5.066	5.368	5.766
5	5.751	5.867	5.985	6.105	6.353	6.610	6.877	7.442	8.297
6	7.153	7.336	7.523	7.716	8.115	8.536	8.977	9.930	11.259
7	8.654	8.923	9.200	9.487	10.089	10.730	11.414	12.916	15.073
8	10.260	10.637	11.028	11.436	12.309	13.233	14.240	16.499	19.842
9	11.978	12.488	13.021	13.579	14.776	16.085	17.518	20.799	25.802
10	13.816	14.487	15.193	15.937	17.549	19.337	21.321	25.959	33.253
11	15.784	16.645	17.560	18.531	20.655	23.045	25.733	32.150	42.566
12	17.888	18.977	20.141	21.384	24.133	27.271	30.850	39.581	54.298
13	20.141	21.495	22.953	24.523	28.029	32.089	36.786	48.497	68.760
14	22.550	24.215	26.019	27.975	32.393	37.581	43.672	59.196	86.949
15	25.129	27.152	29.361	31.772	37.280	43.842	51.660	72.035	109.637
16	27.888	30.324	33.003	35.950	42.753	50.980	60.925	87.442	138.199
17	30.840	33.750	36.974	40.545	48.884	59.118	71.673	105.931	173.636
18	33.999	37.450	41.301	45.599	55.750	68.394	84.141	128.117	218.045
19	37.379	41.446	46.018	51.159	63.440	78.969	98.603	154.740	273.556
20	40.995	45.762	51.160	57.275	72.052	91.025	115.380	186.688	342.945
25	63.249	73.106	84.701	98.347	133.334	181.871	249.214	471.981	1054.791
30	94.461	113.283	136.308	164.494	241.333	356.787	530.312	1181.882	3227.174
40	199.635	259.057	337.882	442.593	761.091	1342.025	2360.757	7343.853	30088.655
50	406.529	573.770	815.084	1163.909	2400.018	4994.521	10435.649	45497.191	280255.693

TABLE IV  
Present Value of \$1.00 Per Period for N Periods

$$V_0 = \$1[\frac{1-(1+i)^{-N}}{i}] = USPV_{i, N}$$

n	.5%	1%	1.5%	2%	2.5%	3%	3.5%	4%	5%	6%
1	.995	.990	.985	.980	.976	.971	.966	.962	.952	.943
2	1.985	1.970	1.956	1.942	1.927	1.913	1.900	1.886	1.859	1.833
3	2.970	2.941	2.912	2.884	2.856	2.829	2.802	2.775	2.723	2.673
4	3.950	3.902	3.854	3.808	3.762	3.717	3.673	3.630	3.546	3.465
5	4.926	4.853	4.783	4.713	4.646	4.580	4.515	4.452	4.329	4.212
6	5.896	5.795	5.697	5.601	5.508	5.417	5.329	5.242	5.076	4.917
7	6.862	6.728	6.598	6.472	6.349	6.230	6.115	6.002	5.786	5.582
8	7.823	7.652	7.486	7.325	7.170	7.020	6.874	6.733	6.463	6.210
9	8.779	8.566	8.361	8.162	7.971	7.786	7.608	7.435	7.108	6.802
10	9.730	9.471	9.222	8.893	8.752	8.530	8.317	8.111	7.722	7.360
11	10.677	10.368	10.071	9.787	9.514	9.253	9.002	8.760	8.306	7.887
12	11.619	11.255	10.908	10.575	10.258	9.954	9.663	9.385	8.863	8.384
13	12.556	12.134	11.732	11.348	10.983	10.635	10.303	9.986	9.394	8.853
14	13.489	13.004	12.543	12.106	11.691	11.296	10.921	10.563	9.899	9.295
15	14.417	13.865	13.343	12.849	12.381	11.938	11.517	11.118	10.380	9.712
16	15.340	14.718	14.131	13.578	13.055	12.561	12.094	11.652	10.838	10.106
17	16.259	15.562	14.908	14.292	13.712	13.166	12.651	12.166	11.274	10.477
18	17.173	16.398	15.673	14.992	14.353	13.754	13.190	12.659	11.690	10.828
19	18.082	17.226	16.426	15.678	14.979	14.324	13.710	13.134	12.085	11.158
20	18.987	18.046	17.169	16.351	15.589	14.877	14.212	13.590	12.462	11.470
25	23.446	22.023	20.720	19.523	18.424	17.413	16.482	15.622	14.094	12.783
30	27.794	25.808	24.016	22.397	20.930	19.600	18.392	17.292	15.373	13.765
40	36.172	32.838	29.916	27.355	25.103	23.115	21.355	19.793	17.159	15.046
50	44.143	39.196	35.000	31.424	28.362	25.730	23.456	21.482	18.256	15.762

(continued)

TABLE IV Continued

n	7%	8%	9%	10%	12%	14%	16%	20%	25%
1	.935	.926	.917	.909	.893	.877	.862	.833	.800
2	1.808	1.783	1.759	1.736	1.690	1.647	1.605	1.528	1.440
3	2.624	2.577	2.531	2.487	2.402	2.322	2.246	2.106	1.952
4	3.387	3.312	3.240	3.170	3.037	2.914	2.798	2.589	2.362
5	4.100	3.993	3.890	3.791	3.605	3.433	3.274	2.991	2.689
6	4.767	4.623	4.486	4.355	4.111	3.889	3.685	3.326	2.951
7	5.389	5.206	5.033	4.868	4.564	4.288	4.039	3.605	3.161
8	6.971	5.747	5.535	5.355	4.968	4.639	4.344	3.837	3.329
9	6.515	6.247	5.995	5.759	5.328	4.946	4.607	4.031	3.463
10	7.024	6.710	6.418	6.145	5.650	5.216	4.833	4.192	3.571
11	7.499	7.139	6.805	6.495	5.938	5.453	5.029	4.327	3.656
12	7.943	7.536	7.161	6.814	6.194	5.660	5.197	4.439	3.725
13	8.358	7.904	7.487	7.103	6.424	5.842	5.342	4.533	3.780
14	8.745	8.244	7.786	7.367	6.628	6.002	5.468	4.611	3.824
15	9.108	8.559	8.060	7.606	6.811	6.142	5.575	4.675	3.859
16	9.447	8.851	8.313	7.824	6.974	6.265	5.668	4.730	3.887
17	9.763	9.122	8.544	8.022	7.120	6.373	5.749	4.775	3.910
18	10.059	9.372	8.756	8.201	7.250	6.467	5.818	4.812	3.928
19	10.336	9.604	8.950	8.365	7.366	6.550	5.877	4.843	3.942
20	10.594	9.818	9.129	8.514	7.469	6.623	5.929	4.870	3.954
25	11.654	10.675	9.823	9.077	7.843	6.873	6.097	4.948	3.985
30	12.409	11.258	10.274	9.427	8.055	7.003	6.177	4.979	3.995
40	13.332	11.925	10.757	9.779	8.244	7.105	6.233	4.997	3.999
50	13.801	12.233	10.962	9.915	8.304	7.133	6.246	4.999	4.000

## Chapter 7

### FINANCIAL MANAGEMENT FOR THE GOOD SEASONS

Frederick J. Smith  
Kenneth J. Roberts

Commercial fishing has its ups and downs, although these days, it seems to be down most of the time. When it has been a good season, the fisher must decide which bills to pay first and what to do with the cash left over. Fortunately, there are some principles which will help him make this decision and make good use of that extra cash.

#### FINANCIAL STATEMENTS

How Much Extra Cash Is There? He can look in his wallet, his checkbook, or in the piggy bank but he won't find his extra cash in any of these places. The best way to find the extra cash is to prepare a profit and loss statement, a cash flow statement and a balance sheet. If this seems like a lot of work, it is a comfort to know that these financial statements are useful for many other decisions.

A profit and loss statement lists all the costs and the revenue for the season. It summarizes the fishing business and shows exactly how much profit he earned--whether or not he has any in his pocket.

A cash flow statement shows weekly or monthly cash outflow and cash inflow--not necessarily costs or revenue. For example, cash outflow may be for loan principal payments, the purchase of new electronics or a birthday gift. None of these are expenses that would show up on the profit and loss statement. Also cash may flow in from loans taken out, the sale of a truck or gifts received. None of these would show up on the

profit and loss statement either. The cash flow statement shows how much cash flows out, how much cash flows in, and whether there is any cash left at the end of the week or month.

Finally, the balance sheet shows the dollar value of all the fisher's assets and liabilities at one point in time--usually January first. It tells him where his money is; in the bank, tied up in the boat, in fishing gear, in a home...

These three statements will show just how much extra cash he has, how much of it is already committed and where it is. Knowing this, he can start thinking about what to do with that extra cash. An accountant can prepare these three statements, or better yet, with a little studying of readily available literature, the fisher can prepare them himself.

Basic Cash Needs. The most basic need is food and shelter. The fisher must have the cash to pay for groceries, utilities, rent, etc. Also important is cash for insurance, loan principal, clothing, college tuition, and other regular needs.

If it has been a good season he will not have to worry about these needs and will be able to cover his fishing business cash needs as well: fuel, bait, repairs, licenses, labor, etc.

If the fisher has been able to meet all these needs out of current income, it is time to think about setting aside cash for next season's needs. He may have plenty of cash now, but the fish may not be there next season; or he may be

injured, or his boat may be wrecked and he will be desperate for some extra cash.

Most money management experts recommend that he set aside enough cash to cover 4 to 5 months of basic family living needs. If this is not enough, he will want some income insurance or be prepared to liquidate some of his fixed assets (look at the balance sheet).

Keep Extra Cash Working. If a fisher is setting aside enough cash to cover 4 to 5 months of basic family living needs, he will want this cash to earn some interest and still be readily available. The most obvious place of this extra cash is in a passbook savings account. The interest isn't great but he can get the cash when he needs it. Fortunately, there are accounts bearing much higher interest, in which the money is nearly as accessible as in a passbook account. He should think about just how much accessibility or flexibility he really needs and get his cash into the highest interest account which offers that level of accessibility or flexibility. Remember to look at risk as well as interest rates.

Is he paying high interest on some of his loans? Perhaps it would be better to pay off these loans, especially if he is paying higher interest than he could earn in an interest bearing account. The interest difference would have to be quite large since the use of extra cash to pay off loans greatly reduces its availability for future emergencies.

The fisher may be able to borrow it back next season if he needs it, but there is no assurance that any lender will



consider him to be as good a credit risk as he was when he took out the original loan. In fact, he may look like a poor loan risk just when he needs the cash the most!

#### THE NEXT-BEST INVESTMENT

His Own Business. After setting aside cash to cover basic living needs for 4 to 5 months, he may still have cash looking for a good use. For a commercial fisher, his own business may be the next best use for extra cash. Unfortunately, the profitability of commercial fishing has not been very good the last few years. This does not mean that all fishing has been unprofitable. In fact, if a fisher has extra cash, he may be one of these exceptions where an investment in his own business is a good move.

There are several advantages for a fisher investing in his own fishing business: 1) he controls his own business and therefore his own investment, 2) he is more familiar with investment opportunities in his own business, 3) he can predict the payoff of investments in his business (at least he should be able to!), and 4) he gets all the payoff from investments (if there are any) in his own business.

In addition to these advantages, there are government programs which reward him for investing in his own business, and some programs which apply only to commercial fishing investments. At times, increases in boat values have been greater than other comparable investments. While this does not buy groceries, it could pay off at retirement time.

Someone Else's Business. Putting extra cash into someone else's business may be smarter than putting it into his own business. Given the amount of fish available, it is not unusual for many fishers to have more capital tied up in their business than they can justify and adding more is not likely to increase profitability. Putting extra cash into someone else's business may generate more profits, especially if it is not a fishing business.

Most people invest in others' businesses by purchasing stocks and bonds. It's possible to invest \$10 or \$10-million for a piece of paper that represents some fraction of the value of the company and not any particular part of it. Bonds issued by private companies are generally less risky than stocks issued by private companies. Bonds have fixed interest earnings and represent a claim on company assets ahead of stocks. However, stocks increase in value with company success and usually with prices.

One can buy risky stocks or safe stocks. One can buy growth stocks or dividend stocks. For someone already in a risky business, it may make little sense to buy risky stocks. If fishing business asset value goes up and down with inflation, it may make little sense to buy stocks that also rise and fall with prices.

For a young person who wants to build up a nest egg for the future, growth stocks are better than income stocks. However, those thinking about retirement who want more than Social Security for food and shelter, stocks with guaranteed

dividends make more sense.

People with spare time who enjoy following the stock market and studying the national and international economy can save on investment costs by buying stocks through a broker. But for most fishers, who don't have enough time even for their own fishing business, it is better to use a professional investment counselor.

Property. Extra cash can be put into one's own home, rental property, farm land, forest land, offices, etc. Historically, this kind of property has increased in value with the general price level, and it was necessary to collect rental income only to cover costs. More recently, property values have not always kept up with general price levels; and rental or lease income must now be large enough to cover costs and the income given up by not investing in interest-earning property.

Extra cash can go into undeveloped land in hopes of future development to significantly increase values. Vacant waterfront, land at highway intersections, airport property, land adjacent to urban expansion all have the potential for significantly increased values. Of course, this land will not produce a cash flow to cover property taxes, sewer charges, legal fees, zoning fees, etc., and may be very hard to convert back to cash when cash is needed in a hurry. One must have the time, skill and knowledge to buy this kind of property and expect any significant gains.

It's also possible to put the extra cash into art works

and other collectibles. Values of collectibles have generally increased faster than prices in general. Oil paintings, old jewelry, glass, exotic metals and even old cars have the potential for major increases in value over time, but they may also turn out to be worthless.

Anyone planning to put extra cash into collectibles will need some special skills. He must know the difference between the genuine collectible and the many imitations; he must know the current prices and he must know where to buy and sell. This knowledge is difficult to obtain and the buying and selling process is very time-consuming.

Once Again. For those lucky enough or skillful enough to have extra cash at the end of the season, use it first for basic living needs--future as well as current. Next, consider putting it into your own fishing business unless an investment in someone else's business is sure to be more profitable and less risky. If there is still extra cash and the time to be an expert, then dabble in other kinds of property.

## Chapter 8

### DEALING WITH DISASTER

Dave Swartz  
Thomas J. Murray

Risk and uncertainty are very much a part of commercial fishing. A long winter freeze can put fish and shellfish out of reach. A storm can damage boats or gear. Market prices drop while costs are up and going higher. A fisher falls and breaks a leg incurring hospitalization costs and a temporary loss of income. All of these situations can spell disaster for the average fisher.

We can't control the weather, the market or many other events, but there are a number of things a fisher can do to minimize their impact on her fishing operation and her life. This chapter considers some of the things a fisher can do to protect her business, insurance, financial management strategies, investment in safety equipment, business organization and so on. In the event that a disaster catches a fisher unprepared, there is a section which outlines government programs available to assist her through the tough times. The chapter then discusses some specific examples of disasters.

#### KEY WORDS

##### Risk

- Risk is associated with exposing oneself to injury, damage or loss. The term risk implies that probabilities can be associated with deviations from expected values of different outcomes.

##### Uncertainty

- Implies that an outcome is indeterminate; that is - not certain to occur. Estimates of probability cannot be attached to any deviation from expected outcomes.

##### Partnership

- A voluntary association of two or more persons to carry on, as co-owners, a business for profit.

##### Corporation

- A legal entity separate and distinct from the shareholders who own it, from the individuals who manage it, or from its employees. It is created by state law and organized for the purpose of carrying on a business for profit.

## INSURANCE

The best defense against tough times calls for careful business planning. One of the ways a fisher can protect herself, her family and her boat against the unexpected is through insurance. By paying predictable premiums, a fisher as a policyholder, avoids some of the unpredictable expenses that could destroy the business.

Because each fishing operation is different, insurance policies offered are not standardized. Therefore, the fisher should become familiar with marine insurance and what policies do, and do not, cover with respect to the vessel, personal injury claims, etc. As indicated above, commercial fishermen are exposed to numerous and complex risks of loss.

A vessel owner's obligation to compensate an injured crewmember, for example, is an unescapable duty arising out of tradition and general maritime law. This obligation goes beyond that imposed on most other businesses. For example, if your vessel has a preferred ship mortgage, it may be secondary to a crewmember's claims for compensation due to an injury, if the injury results from negligence.

Because fishing is a very unpredictable business, a successful operator must be able to adapt to different methods and types of fishing and move from one area to another as conditions warrant. Insurance requirements may change after policies are written.

For example, high prices in the sea scallop industry of the Northeast may attract fishing boats which would typically

be shrimping off the South Atlantic coast. Conventional shrimping operations may require two or three crewmembers, whereas the deep sea scallop boats may use 10 to 15.

Therefore, the insurance agent must be alerted to any change in the operation to prevent a possible breach of policy conditions during the term (usually one year). What follows is an outline of the three types of insurance protection that a fisher should consider.

Hull and Machinery Insurance. This indemnifies the owner for accidental physical loss of her vessel. The vessel includes machinery, furniture, electronic equipment, and all other equipment, except fishing gear and nets, cargo, fuel provisions and supplies, and personal articles. Loss of income while the boat is out of service is not typically covered. These policies are fairly standardized with respect to the perils covered. Generally, they are "of the seas" which includes storms, grounding, stranding, striking of submerged objects, collision, and "other like perils."

Damage resulting from a "latent defect" may be covered if it can be shown that a defective part did not wear out through normal use, that the defect was unable to be detected by normal inspection, and excluding the cost of repairs in replacing the defective part itself.

Collision liability, for example collision with another vessel, is generally included as an additional amount of insurance equal to the hull "agreed value." This covers liability of the fisher for damage in loss of use of the other

vessel and its cargo. All other liabilities are subject to the Protection and Indemnity insurance to be discussed below. The amount of insurance is an "agreed valuation," meaning that the vessel's value is agreed upon in advance. In the event of a total loss, the agreed value is paid. Therefore, it is important for the fishers to carry insurance equal to the full value of the vessel.

Fishers should be careful to read very closely the exact coverages included in their hull policy. The perils protected against in the hull coverage are very exact and their definition is specific based mainly upon precedent.

Protection and Indemnity. The second major form of coverage required in most commercial fishing businesses is Protection and Indemnity. Known as P & I, it covers the legal liability of the vessel owner for injury to crewmembers and for other liability claims that arise from ownership of the vessel. Persons other than crewmembers may be accidentally injured on or about the vessel and claims by such persons or their families are covered under Protection and Indemnity policies.

Also, wreck removal, when compulsory by law, such as on a public beach or in a navigable channel where it would constitute a hazard, is covered. Policies also provide for costs of defense, as well as for eventual judgments against the fisher, should an excessive liability claim be filed by third parties. Dramatic increases in the settlements of crewmember injury claims in recent years suggest that the fisher who hired



individuals on a boat should be well protected in terms of Protection and Indemnity from this liability.

Breach of Warranty. The final major coverage which commercial fishers may consider is termed breach of warranty or mortgagee's interest coverage. Generally, this coverage is useful when a mortgage is held on the fisher's vessel. Marine policies generally contain warranties which are conditions which must be met in order for the insurance to be effective. They apply to both Hull and P & I policies. For example, expressed warranties in most policies are navigation range, specific number of crewmembers on board, maintenance of firefighting equipment, etc.

If a claim occurs and one of these warranties has been breached, for example the vessel has operated outside its navigation range, the Hull policy which would normally cover the claim is voided because of this breach of warranty.

Breach of warranty coverage insures the fisher against voiding the Hull and P & I policies from breaking one of these warranties. In most instances, a lender would require this breach of warranty coverage in financing a vessel. There are other warranties which are not expressed, but rather implied, such as seaworthiness and that the vessel is used for legal purposes.

Breach of warranty does not provide "all risk coverage," It does, however, prevent an insurance company from denying coverage on the basis of an act or omission by the fisher of which the owner or mortgagee was not aware and had no control.

This type of coverage is valuable to vessel owners who are not a part of the day-to-day operation where a hired captain or crewmember may, without the owner's acknowledgement and consent, travel outside of its navigational limits or operate in some other method which would constitute a breach of the warranties in primary Hull or P & I policies.

All Hull, P & I and breach of warranty policies have deductibles which are pre-agreed amounts subtracted from claim payments. Under the Hull insurance, the higher the deductible--that is, the amount the fisher is willing to risk--the lower the premium. The advantage to the fisher of the high deductible is relative to her total premium savings on vessels with high values. Credit for higher deductibles can be significant. To a fisher, it is really not practical to insure against relatively small losses. In the long run, it is much better for the insured to select a high deductible and apply the premium savings toward adequate Hull and P & I limits. This way, marine insurance can perform its intended function at a reasonable cost.

Health Insurance. Personal insurance, often neglected by fishers, provides very important coverage. A single illness or accident can wipe out any savings or put a fisher deeply into debt. There are many sources of health and accident insurance coverages available, such as:

- Blue Cross/Blue Shield
- Group Health Insurance (GHI)
- Private Insurance Companies
- Health Maintenance Organizations (HMO)
- Medicare
- Medicaid

Life Insurance. In addition, fishers should consider life insurance. Life insurance protects a fisher's business and family against the financial burden arising from her death.

By insuring her boat and gear, her income, her health, and her employees, a fisher can minimize potential economic disasters that could befall her fishing business from hospitalization costs, legal costs of "acts of God," such as storms or fires.

#### MANAGEMENT STRATEGIES TO DEAL WITH UNCERTAINTY

There are many things a fisher can do to plan for tough times. This section briefly reviews some actions a fisher can take from a business planning perspective.

Diversification. By working in more than one fishery or area, a fisher can reduce her reliance on a single market or product. When earnings from one product are low, she can hope the others will do better. If she diversifies, a fisher will likely experience less income fluctuation than the fisher who concentrates in one fishery. Diversifying could mean fishing in different fisheries, chartering, working in a related field (like marine diesel mechanics) or working in an unrelated field. However, diversification has a cost associated with it. A fisher may have to compromise with a vessel that will do more than one job. She may have to get additional gear or training.

Marketing Agreements. A fisher can remove all or part of

the uncertainty surrounding future market transactions by entering into a market contract or agreement with a buyer. However, by protecting herself against possible low fish prices, she may forfeit possible gains associated with low-supply, high-price market conditions.

Crew Shares. Almost every vessel operator pays the crew on a percentage of the total catch. By doing this, the crew shares the cost and the possible risks of a poor trip. The operator tends to reduce potential loss from a poor trip at the expense of a greater potential gain from a good trip.

Asset Liquidity. With more money in the bank and a larger percentage of equity (ownership) in a vessel, a fisher can get through bad times easier than someone with little money in the bank and large monthly payments due. By keeping cash on hand or assets in a form that can be easily liquidated or converted to cash, she can get through those occasional bad times.

Business Organization. Incorporation of a business provides important protection for an individual fisher's personal assets, such as home, car and savings. When a corporation is formed, there is limited liability of the shareholders for the acts and obligations of the corporation. Other forms of business organization offer some protection, such as a limited partnership. However, in this case only the limited partner's contribution is liable, with the remainder of the partner's assets protected. (Note: Many banks require a personal guarantee by corporate officers to insure payment on loans).

The fishing cooperative is another form of business organization to consider. The cooperative can be in the form of a partnership or a corporation, and the benefits of protection from liability are similar to those discussed above. In addition, by coming together to form a co-op, fishers can avoid some problems they would face on their own. For example, if the co-op is large enough, a group health insurance program may be available, which would reduce rates to the individual fisher.

Also, a co-op can exert leverage on buyers and suppliers to get lower prices on inputs (discounts for larger purchases) and high prices on their final outputs. Lower costs and higher prices for fish products lead to higher profit margins. A healthier firm is better able to withstand occasional onslaughts from man or nature.

#### INVESTING IN SAFETY EQUIPMENT

Investment in survival suits, emergency radio beacons or bilge and fire alarms can be an inexpensive means to insure the survival of a fisher and her crew. There are several good reasons for investing in safety equipment:

- . Safety--a fisher can avert a possible catastrophe
- . Money--it's cheaper in the long run
- . Requirements--banks and insurance companies in many cases require alarms and other safety equipment
- . Peace of Mind--sleeping is a lot easier

It is possible to use traditional methods of financial analysis (discussed elsewhere in this book) to determine whe-

ther the investment in safety is sound from an economic standpoint; however, you will have to place a value on the resource at risk and determine the likelihood of the event you are protecting against. For a boat, gear or equipment, this is relatively straightforward. But, how much value would you place on your life or that of anyone else?

#### DISASTER STRIKES!

If a disaster should strike, catching a fisher unprepared, there are a number of things she can do which may help her get through the tough times. The federal government, along with state and local governments, provides many services which may assist in the event of a disaster. These include financial assistance programs, health care, food and shelter, educational and job training, and so on.

In addition to programs designed to serve disaster victims and the disadvantaged are traditional options, such as tax advice and management programs. Under the casualty and theft-loss provision are options of the tax codes to deduct the amount of the loss on one's income tax return. A deductible casualty may result from an earthquake, hurricane, tornado, flood, storm, volcanic eruption, shipwreck, vandalism or fire.

In a following table approximately 30 federal programs are outlined which can assist in the event of a disaster or help prevent one. Most states and localities administer many of these programs or offer similar services. In addition,

there are a number of sources of funds for universities which desire to set up training programs or to research safety requirements of industry.

Consider Options. If a disaster strikes and creditors begin to circle like vultures awaiting their last meal, then it is advisable to approach these creditors and request a renegotiation on the terms of loans or debts to fit a realistic pay-back scenario. If all else fails, and it is still fourth down with thirty yards to go, a fisher can file for reorganization and protection from creditors. Bankruptcy, however, should not be taken lightly. Both the short-term benefits and the long-term costs should be discussed with a lawyer who has expertise in this area.

## TWO CASE STUDIES

It seems as if a day doesn't go by when we don't hear about a fisher or a fishery which has been subject to some man-made or natural disaster. Recent headlines provide examples of the range and type of disasters:

El Nino Current Shifts--Puts Lid on Mackerel and Squid  
Catch

Oregon Inlet Ensnarls Another Trawler

Pump Failure Leads to Longlines's Sinking

Fishing Banned in James River--Due to Kepone

MSX Parasite Devastates Maryland's Oyster Fishery

Whether due to nature, as in the El Nino current shift, or man, as in the dumping of the pesticide Kepone by Allied Chemical Company, the impacts can be devastating. This sec-

tion provides two case studies which highlight some of the material presented earlier. The first case shows the potential impacts of a fisher not being covered by health insurance; the second shows the impacts on an industry from unfavorable weather conditions.

Case 1 - Personal Injury in Alaska. During the winter of 1983, a fisher making repairs on his boat fell from the top of his wheelhouse and impaled himself on a piece of deck equipment. He was rushed to a local hospital for treatment. Putting the fisher back together required the help of a plastic surgeon, an operating room staff and assorted other medical professionals, not to mention all the facilities, equipment and supplies required. A short stay in the hospital along with drugs to ease the pain and prevent infection helped run up a bill near \$6,000, placing a financial burden on this unfortunate fellow. Without insurance, his savings were wiped out and his assets attached and sold to recover the costs of hospitalization and doctor fees.

Clearly, this fisher was fortunate to live--and not to endure a long-term hospital stay. Had he been covered by P & I (Protection and Indemnity Insurance), between 75 and 100 percent of the medical costs would have been covered--freeing him from financial disaster. In addition, it should have been possible to negotiate a reasonable pay-back scheme with the hospital and doctors. If you do not explore this option with creditors, then they are likely to seek the assistance of the courts in freezing and attaching assets.

Health-insurance companies offer to take the financial responsibility off a fisher's hands for anywhere from \$500 to \$1,400 annually. Even a small injury may exceed these costs, so the price is a reasonable hedge against a real financial disaster.

Case 2 - Winter of 1977--The Year the Chesapeake Froze Over. During the winter of 1977, much of the Chesapeake Bay



was iced up, putting thousands of fishers out of work. The ice-up hit the blue-crab fishery--killing nearly half the crabs. It prevented oystermen from getting out to the oysters--or worse, damaging gear and sinking hundreds of vessels. It was the year that the President declared a disaster, freeing up federal funds and assistance to this troubled region. Leading the efforts to help the fishers was the Maryland Marine Advisory Service. Hundreds of families were directed to relief centers and assisted with applications for long-term, low-interest SBA loans--to help the industry through some rough times and get back on its feet again.

In this second case, we can see an example of a success story. The marine agents stimulated the declaration of the disaster and assisted the fishers in taking advantage of the programs. In both the case of the individual fisher and the industry, the Marine Advisory Program has a role in providing information and assistance to help prevent disaster and to lend a hand when disaster strikes.

#### SUMMARY

No one can avoid the uncertainties of life, but knowing a few ways to minimize risks can help keep a fisher in business. By insuring her possessions and health, by taking other risk-reducing measures, such as crew-sharing or diversifying, she can avoid setbacks that could drain capital or put her out of business. If disaster should strike, there exist many government programs which can help her get back on her feet again.

(Source: Lesko, M., Information U. S. A.)

<u>Federal Programs</u>	<u>Purpose</u>	<u>Source of More Information</u>
Emergency Food Program	Supplies surplus food to relief agencies.	Commodity Credit Corporation., ASCS, USDA, Rm. 5714, S. Bldg. Wash., D.C. 20250, 202-447-4786.
Food Assistance Program	Food stamps, breakfast and lunch programs for pre-school and school age children, food for expectant mothers, etc.	Food and Nutrition Service USDA, Wash., D.C. 20250 202-447-8211, 202-447-8193.
Economic Emergency Loans	To make adequate financial assistance available in the forms of loans insured or guaranteed to farmers and aquaculture operators so that they can continue operations during an economic emergency.	Farmers Home Admin. USDA, Wash., D.C. 20250 202-447-7967.
Emergency Loans	To assist farmers and aquaculture operators with loans to cover losses resulting from a major disaster.	Farmers Home Admin., USDA, Wash., D.C. 20250 202-447-7967
<u>Department of Commerce</u>		
Commercial Fisheries Disaster Assistance	To provide resource disaster agencies which regulate fisheries.	State/Federal Div., NMFS, Dept. of Commerce, Page Bldg. 2 3300 Whitehaven St., NW Wash., D.C. 20235 202-634-7454.
Fishermen's Guarantee Fund	To provide for reimbursement of losses incurred as a result of the seizure of a U.S. commercial fishing vessel by a foreign country. Available to agreement holders. Fee required.	Financial Services Div., NMFS, Dept. of Commerce 3300 Whitehaven St., NW Wash., D.C. 20235 202-634-74956

Fishing Obligation Guarantee Program	To provide governmental guarantees of private loans to upgrade the U.S. fishing fleet.	Financial Services Div., NMFS Dept. of Commerce 3300 Whitehaven St., NW Wash., D.C. 20235 202-634-7496
Trade Adjustment Assistance	To provide trade adjustment assistance to businesses adversely affected by increased imports.	Ofc. of Private Investment Econ. Dev. Adm., Dept. of Commerce, NW Wash. D..C. 20230 202-377-5081
Storm Forecast Center	Prepares and releases hourly messages of expected severe storms.	National Severe Storms Forecast Center, NOAA Dept. of Commerce 601 E. 12th St., Rm. 1826 Kansas City, 64106 303-499-1000
Fishing Vessel and Gear Damage Compensation Fund	This program compensates U.S. fishers for fishing vessel & gear casualties which are caused by other vessels. Casualties to vessels are eligible if they are caused by a foreign vessel. Casualties to gear are eligible if they are caused by any other vessel.	Financial Services Div., NMFS Department of Commerce 3300 Whitehaven Street, NW Wash., D.C. 20235 202-634-7496
<u>Department of Health and Human Services</u>		
Emergency Medical Services	To provide assistance for the development of comprehensive emergency medical services to local and state government.	Div. of Emergency Med. Servs. Dept. of H & H 5600 Fishers La., Rm. 6-40 Rockville, MD 20857 301-443-5250
Medical Assistance Program (Medicaid)	Financial assistance to states for medical assistance.	Local Social Welfare Office

Occupational Safety and Health Research Grants	To understand the underlying characteristics of occupational safety and health problems and provide solutions to dealing with them. Individuals, state or local governments, universities, or nonprofit organizations are eligible for grants which range from \$5,000 to \$150,000.	Procurement and Grants Management Branch, National Institute for Occupational Safety and Health Dept. of Health & Home Services 5600 Fishers Lane, Rm. 8-33 Rockville, MD 20857 301-443-3122
Social Services for Low-Income & Public Assistance Recipients	To enable states to provide social services.	Contact Local Social Services Office.
Training in Emergency Medical Services	To meet the cost of training and to aid in the establishment, improvement or expansion of training programs in the techniques and methods of providing emergency medical services. Grants awarded to universities and nonprofit organizations from \$14,800 to \$342,658.	Division of Medicine Bureau of Health Manpower Dept. of Health and Human Ser. Hyattsville, MD 20782 301-436-6418
Public Health Hospitals and Clinics	Provision of health services to disadvantaged.	Bureau of Medical Services Dept. of H&H Services 6525 Belcrest Road Hyattsville, MD 20782 301-436-6262
Social Security	Is the basic method of providing continuing income when family earnings are reduced or stopped because of retirement, disability or death.	Local Social Security Office
<u>Department of Housing and Urban Development</u>		
Low Income Housing	To provide decent, safe and sanitary housing and related facilities for families of low income.	Office of Public Housing Dept. of HUD, Rm. 6230 Wash. D.C. 20410 202-755-6522

Mortgage Insurance-  
Homes for Disaster  
Victims

To help victims of a major  
disaster undertake home  
ownership. Assistance up to  
\$14,400.

Office of Single Family Housing  
HUD, Rm. 9270  
Wash., D.C. 20410  
202-755-6720

Department of Labor

Unemployment Insurance

To administer unemployment  
insurance payments through  
State agencies. It provides  
temporary income to covered  
employees.

Unemployment Insurance Ser.  
Department of Labor  
601 D St., NW, Rm. 7000  
Wash., D.C. 20213  
202-376-7032

Employment and Training  
Programs

To provide job training and  
employment opportunities for  
economically disadvantaged and  
unemployed persons. Grants to  
local governments.

Employment and Training Adm.  
Dept. of Labor  
601 D St., NW  
Wash., D.C. 20213  
202-376-6366

Job Information Service  
(JIS)

Centers are located locally  
and enable individuals to  
conduct their job exploration  
through employment opportuni-  
ties listings.

Div. of Applicant Services  
Employment & Training Adm.  
601 D St., NW  
Wash., D.C. 20213  
202-376-6718

Department of Transportation

Aids to Navigation

Each U.S. Coast Guard dis-  
trict provides a copy of  
"Local Notice to Mariners"  
which lists channel condi-  
tions, obstructions to navi-  
gation, danger areas, etc.

Marine Information Branch  
Short Range Aids to Navigation  
Division  
Office of Navigation  
Coast Guard, Dept. of Trans.  
2100 2nd St., NW, Rm. 1414  
Wash., D.C. 20593  
202-426-9566

Courtesy Marine Examination

To determine if your vessel  
meets federal and state safety  
related requirements.

Contact local Coast Guard Aux.

Icebreaking

Coast Guard is responsible for  
icebreaking activities.

Contact local Coast Guard

Marine Safety

The marine safety program provides computerized information on vessels with safety violations.

Safety Information and Analysis Branch  
Ofc. of Marine Env. Systems, Coast Guard  
Department of Transportation  
2100 2nd St., SW, Rm. 1106  
Wash., D.C. 20593  
202-426-1450

Coast Guard

Responds to distress calls at Sea--over 70,000 a year.

Search & Rescue Division  
Office of Operation, Coast Guard  
Department of Transportation  
2100 2nd St., SW, Rm. 3222  
Wash., D.C. 20593  
202-426-1948

Federal Emergency Management Agency

Disaster Assistance

In times of disaster, the Federal Emergency Management Agency establishes Disaster Assistance Centers where relief can be offered to disaster victims. Assistance includes temporary housing, low-interest loans, unemployment assistance, food stamps, tax advice, social security assistance, etc.

Operations Ctr., Disaster Response & Recovery  
Federal Emergency Management Agency, Rm. 708 LOG  
1725 Eye St., NW  
Wash., D.C. 20472  
202-287-0508

Small Business Administration

Disaster Assistance and Loans

Disaster loans provide assistance to small businesses to help them recover from disaster.

Office of Disaster Loans  
Small Business Association  
1411 L St., NW, Rm. 820  
Wash., D.C. 20416  
202-653-6879

## Chapter 9

### GETTING OUT OF FISHING

Norman K. Bender  
Thomas J. Murray  
Kenneth J. Roberts

Leaving the fishing industry may be caused by many factors that can affect the ability of a person to remain active as a commercial fisher. They include planned situations like retirement or voluntarily choosing another occupation (for financial or lifestyle reasons). Getting out of fishing may also result from unplanned situations like unfavorable economic conditions, poor financial planning, physical disabilities or injuries, or even death.

Regardless of the reasons, there are financial and other considerations that you should keep in mind to protect the best interests of yourself, your family and any other people dependent upon your income. You will need to look ahead and project short- and long-term occupational goals. Chapter Two, "Starting a Fishing Operation," discusses income and lifestyle goals that should be reviewed when you are considering entry into the commercial fishing industry.

Other chapters in this Advisory Handbook discuss various situations requiring carefully planned financial management. Your ability to leave the fishing industry in the most beneficial manner for you and your dependents will depend upon decisions made throughout the course of your career as reflected in the following situations covered in the Handbook's chapters:

- conducting day-to-day operations
- modifying a boat
- replacing an existing boat
- changing fisheries
- windfall situations
- disastrous situations, and
- looking ahead to leaving the industry in one manner or another

Careful financial planning can help you to avoid bankruptcy, overcome financial crises that could lead to your having to find another source of income, or provide for a

comfortable retirement.

#### VOLUNTARY SITUATIONS

There are several basic situations where a fisher may choose to voluntarily leave commercial fishing. The first is where lifestyle considerations result in a fisher's desire to find another occupation that more closely fits in with his interests, skills, time and locational interests. Economists have used the term "opportunity costs" to describe the costs (benefits given up) of not engaging in another activity or occupation.

Going into Another Occupation. For example, you may decide that you would prefer to work in an occupation that provides more time with your family than is presently allowed as a commercial fisher. The opportunity cost here includes the loss of time spent with your spouse and children that cannot be put off in the future. Another opportunity cost may be a more stable annual income or perhaps a higher income level than you are presently receiving from your fishing activities.

When you are considering a voluntary exit from fishing you will need to make decisions regarding your ability to leave fishing as well as how to move into another occupation.

Your legal and financial relationship to the fishing business will affect your relative ease in moving out. If you are a self-employed crewmember (as defined by the Internal Revenue Service) with no financial investment in the fishing business, then you have fewer issues to resolve than if you



are a partner or share-holder in the fishing business.

As a self-employed crewmember your major issue will be determining what other lines of work are available to you with your present skills, contacts and willingness to relocate to a new town with available jobs. Another issue is what level of income you require/desire from another occupation. You may want to establish a personal/family budget which considers total income (job salary/wages plus savings, investments, etc.) and total expenses (personal and job-related).

Finding another job can involve discussing your decision and new job objectives with family members, local/regional employers and the state employment office (now called the "State" Job Service).

If you are an owner or partner in a fishing boat, then your financial considerations will be more involved than that of the self-employed crewmember. You will need to decide the degree to which you are leaving fishing. A complete pullout will involve selling all fishing assets including the boat, pots, nets, tools and all other fishing gear. It may involve selling the rights to a fishing permit in areas where limited entry fishing licensing programs are in place. It may also involve dealing with fishing liabilities like loans, maritime liens on your fishing vessel or even settling lawsuits (if any exist).

Chapter 5 discusses the timing factor when selling a fishing boat. You will need to consider your relative need for the proceeds from selling fishing assets immediately, or

whether you can afford to hold them until such a time that you will receive the highest market price for them.

You may have self-employed crewmembers and employees working in your fishing business. It is only fair to provide them with adequate planning time to look for new jobs and to provide references and other assistance as required by circumstances.

There are times when you may decide to change your relationship to your fishing operations rather than leaving it completely. For example, instead of totally liquidating your fishing assets, you may decide to move from an owner/operator role to that of an absentee owner/partner. This will allow you to go into another occupation, yet still maintain your fishing investment. Of course, this route is available to you if you do not need your fishing equity for other purposes. It allows you to continue your ties to fishing through financial and possibly management commitments.

Maintaining your investment in a fishing business through an absentee owner or silent partnership arrangement has an added advantage. It may provide flexibility for you to reverse your initial decision to leave the fishing industry. This can be an important thing to consider if your decision to get out of fishing is a tentative one. A key point to remember is to keep as many options open to you as you consider your relationship to commercial fishing.

Undesirable Financial Situations. Another voluntary situation is one where your fishing financial situation is

approaching a level that is undesirable. It may involve an unsatisfactory level of annual income or return on investment or financial ratios reaching danger levels.

This is not the same as a bankruptcy situation. However, if allowed to continue without proper adjustments, it could develop into one. You need to analyze your financial situation to determine your alternative routes in dealing with a deteriorating financial situation. Advice is available from Sea Grant marine economists, accountants and lawyers. It is important that you avoid a situation where your financial condition deteriorates to a point beyond your control.

Retirement. Planning ahead for retirement involves many factors including: future income levels and sources, lifestyle considerations, health and medical coverage, as well as numerous other factors not covered here.

Comprehensive retirement planning advice may be available from Area Agencies for the Aging, the National Council of Senior Citizens, the American Association of Retired Persons, or the State Cooperative Extension Service. Advice from these agencies and organizations may cover: financial planning, health issues and coverage, social activities, transportation services and other information useful to potential and current retirees.

Since there is no comprehensive national retirement program in the United States, it falls upon each fisher to plan ahead for his sources of retirement income. Fishers who are self-employed (either as an owner/operator of a fishing busi-

ness run as a sole proprietorship or who are crewmembers considered self-employed) are required to contribute to the Social Security Administration through the self-employment tax.

Responsibilities for fisher's self-employment tax liabilities are covered in Internal Revenue Service publications 595, Tax Management for Commercial Fishermen, and 539, Employment Taxes. The Social Security Administration is the basic source for answers to any questions regarding Social Security benefits for fishers (in a self-employed or employed category), their spouses or their children.

You may be able to use tax-deferred retirement plans that will provide additional financial security for retirement while allowing federal income tax deductions during the years the income is earned. These private retirement plans, together with Social Security, can be used to develop a retirement program tailored to meet the needs of commercial fishers.

Your retirement may be a long way off, but the time to plan is now. Taking advantage of an Individual Retirement Account or Keough Plan may help fill financial gaps encountered during your retirement years.

When planning for your retirement, first consider those benefits available from Social Security, then add a private retirement program that adds to your financial security provided under the Social Security system. Through an evaluation of your personal financial situation, a comprehensive retire-

ment plan can be organized.

#### INVOLUNTARY SITUATIONS

Negative conditions existing during an unfavorable economic period or the cumulative impacts of poor financial decisions in the past can lead to your involuntary exit from commercial fishing. It may involve a legally defined bankruptcy situation or, short of that, you may realize that you are being forced to liquidate your fishing and possibly personal assets to pay off financial obligations like loans, mortgages or payments to crewmembers or supplies of fuel and fishing gear.

Bankruptcy involves legal, financial and personal considerations for the present as well as the future. You should consult legal and financial specialists well before you have to begin bankruptcy proceedings. It became common during the 1970s for some people to declare bankruptcy in their business or personal situations. Some people declared bankruptcy because it was the only financial avenue open to them while others saw it as a way of avoiding financial obligations to lenders and suppliers. People in the latter situation may not have looked toward their future business or personal situations which may require borrowing capital when they voluntarily declared bankruptcy. Consulting trained financial and legal specialists is a must when you find you are losing control of your financial situation.

## SUMMARY

Leaving the fishing industry can involve either voluntary or involuntary situations. Your attention to careful financial analysis and planning can increase the odds that you leave the industry in a voluntary situation that conforms with your personal goals regarding your choice of occupation or retirement income and lifestyle.

Careful planning will also assist you in protecting your interests and those of your family if you face an involuntary situation like injuries, disabilities or death. Avoiding bankruptcy or finding the smoothest route through it are other objectives that can be dealt with through financial planning.

You cannot control all the factors that will determine when and how you will leave fishing. However, you can anticipate certain situations and plan for them in an organized manner that combines your goals and interests with those factors that are outside your immediate control.

# APPENDIX A

## SEA GRANT MARINE ADVISORY SERVICE COMMITTEE ON FISHING FINANCIAL MANAGEMENT PROGRAMS

Norman K. Bender (Chairperson)  
Marine Economics Specialist  
Marine Advisory Service  
Cooperative Extension  
University of Connecticut  
Avery Point, Groton, CT 06340  
(203) 445-8664; 446-1020 Ext. 234

Lee F. Bowersox  
Financial Assistance Specialist  
National Marine Fisheries Service  
3300 Whitehaven Street  
Washington, D. C. 20234  
(202) 634-7496

James Cato, Director  
Sea Grant Program  
Building 803  
University of Florida  
Gainesville, FL 32611  
(904) 392-5870

Marion Clarke, Director  
Marine Advisory Program  
117 Newins-Ziegler Hall  
University of Florida  
Gainesville, FL 32611  
(904) 392-1837

J. E. Easley  
Extension Economist  
Department of Economics & Business  
311A Hillsborough Hall  
P.O. Box 8110  
North Carolina State University  
Raleigh, NC 27695-8110  
(919) 737-2885

Jeffrey Gunderson  
Marine Advisory Service Agent -  
Fisheries  
208 Washburn Hall  
University of Minnesota  
Duluth, MN 55812  
(218) 726-8106

Thomas J. Murray  
Aquatic Loan Specialist  
Farm Credit Banks  
P.O. Box 1499  
1401 Hampton Street  
Columbia, SC 29202  
(803) 799-5000

Kenneth J. Roberts  
Marine Economics Specialist  
Cooperative Extension Service  
252 Knapp Hall  
Louisiana State University  
Baton Rouge, LA 70803  
(504) 388-4141

Robert J. Shephard  
Associate Director  
Office of Sea Grant  
National Oceanic & Atmospheric  
Administration, R/SE1  
6010 Executive Boulevard  
Rockville, MD 20852  
(301) 443-8886

Frederick J. Smith  
Extension Marine Economist  
Department of Agriculture &  
Resource Economics  
Oregon State University  
Corvallis, OR 97331  
(503) 754-2942

Patricia F. Staley (Editor)  
Marine Communicator  
Marine Advisory Service  
University of Connecticut  
Avery Point, Groton, CT 06340  
(203) 445-8664; 446-1020 Ext 234

Dave Swartz, Marine Extension  
Economist  
Sea Grant Program  
H. J. Patterson Hall  
College Park, MD 20742  
(301) 454-6506

Frederick Lyda  
Marine Resource Economist  
Sea Grant Program  
University of Georgia  
Athens, GA 30602  
(404) 542-7671

## APPENDIX B

### SEA GRANT MARINE ADVISORY SERVICE OFFICES

#### NATIONAL OFFICE

National Sea Grant College Program  
National Oceanic and Atmospheric Administration  
U.S. Department of Commerce  
R/SE 1  
6010 Executive Boulevard  
Rockville, Maryland 20852  
(301) 443-8886

#### STATE OFFICES

##### Alabama

Coordinator  
Marine Advisory Program  
3940 Government Boulevard  
Suite 5  
Mobile, AL 36609  
(205) 661-5004

##### Alaska

Leader  
Marine Advisory Program  
University of Alaska  
G7 Federal Building  
605 West Fourth Avenue  
Anchorage, AK 99501  
(907) 274-9691

##### California

Coordinator  
Marine Advisory Program  
Food Science & Technology  
Extension  
University of California  
Davis, CA 95616  
(916) 752-3342

Director, MAS  
U. of Southern California  
Inst. for Marine & Coastal  
Studies  
University Park  
Los Angeles, CA 90089-0341  
(213) 743-5904

##### Connecticut

Coordinator  
Marine Advisory Program  
U. of Connecticut  
Avery Point  
Groton, CT 06340  
(203) 445-8664

##### Delaware

Coordinator  
Marine Advisory Program  
College of Marine Studies  
University of Delaware  
Lewes, DE 19958  
(302) 645-4252

##### Florida

Coordinator  
Sea Grant Extension Program  
University of Florida  
117 Newins/Ziegler Hall  
Gainesville, FL 32611  
(904) 392-1837

##### Georgia

MAP Leader  
P.O. Box Z, Univ. of Georgia  
Marine Extension Service  
Brunswick, GA 31523  
(912) 264-7268



#### Hawaii

Coordinator  
Marine Advisory Service  
University of Hawaii  
1000 Pope Road, Rm. 217  
Honolulu, HI 96822  
(808) 948-8191

#### Illinois/Indiana

Coordinator  
Illinois/Indiana Sea  
Grant  
Marine Extension Project  
1206 South Fourth Street  
U/IL at Urbana-Champaign  
Champaign, IL 61820  
(217) 333-1824

#### Louisiana

Coordinator  
Marine Advisory Program  
Center for Wetland Resources  
Louisiana State University  
Baton Rouge, LA 70803  
(504) 388-6710

#### Maine

Coordinator  
Marine Advisory Program  
UME/UNH Joint Program  
Coburn Hall, Univ. of Maine  
Orono, ME 04469  
(207) 581-1443

#### Maryland

Program Leader  
Marine Advisory Program  
University of Maryland  
College Park, MD 20742  
(301) 454-6056

#### Massachusetts

Marine Liaison Officer  
MIT Sea Grant Program, 1-211  
Mass. Inst. of Technology  
77 Massachusetts Avenue  
Cambridge, MA 02139  
(617) 253-7135

Marine Science Advisor  
Woods Hole Oceanographic Inst.  
Woods Hole, MA 02543  
(617) 548-1400

#### Michigan

Coordinator  
Marine Advisory Service  
Natural Resource Building  
Michigan State University  
East Lansing, MI 48824  
(517) 353-3742

#### Minnesota

Coordinator  
Sea Grant Extension Program  
University of Minnesota  
208 Washburn Hall  
Duluth, MN 55812  
(218) 726-8106

#### Mississippi

Coordinator  
Marine Advisory Program  
MS/AL SG Consortium, Suite 1-E  
4646 West Beach Boulevard  
Biloxi, MS 39531  
(601) 388-4710

#### New Hampshire

Coordinator  
Marine Ext. & Public Education  
NEC Administration Building  
15 Garrison Avenue  
University of New Hampshire  
Durham, NH 03824-3560  
(603) 862-1255

New Jersey

Coordinator  
New Jersey Mar. Ext. Prog.  
Monmouth County Ext. Off.  
20 Court Street  
Freehold, NJ 07728  
(201) 431-7920

New York

Program Leader  
New York State Sea Grant  
Marine Advisory Program  
Fernow Hall  
Cornell University  
Ithaca, NY 14853  
(607) 256-2162

North Carolina

Director  
UNC SG Prog. Advisory Serv.  
Box 8605  
North Carolina State Univ.  
Raleigh, NC 27695-8605  
(919) 737-2454

Ohio

Coordinator  
Ohio Sea Grant Prog.  
484 West 12th Street  
Columbus, OH 43210  
(614) 422-8949

Oregon

Head  
Marine Advisory Program  
Oregon State University  
Dept. of Fisheries & Wildlife  
Corvallis, OR 97331  
(503) 754-4531

Puerto Rico

Program Leader  
Marine Advisory Service  
University of Puerto Rico  
Department of Marine Sciences  
Mayaguez, PR 00708  
(809) 832-4040, Ext. 3439,  
3447

Rhode Island

Director  
URI Marine Advisory Service  
URI, Narragansett Bay  
Watkins Building  
Narragansett, RI 02882  
(401) 792-6211

South Carolina

Project Leader  
South Carolina Sea Grant  
Marine Extension Program  
221 Fort Johnson Road  
Charleston, SC 29412  
(803) 795-8462

Texas

Marine Project Supervisor  
Kliberg Center  
Texas A&M University  
College Station, TX 77843  
(409) 845-8557

Virginia

Coordinator  
Marine Advisory Program  
Virginia Inst. of Mar. Science  
Gloucester Point, VA 23062  
(804) 642-2111, Ext. 126

Washington

Assistant Director  
Marine Advisory Services  
Washington Sea Grant Program  
University of Washington  
3716 Brooklyn Avenue, N.E.  
Seattle, WA 98105  
(206) 583-6600

Wisconsin

Coordinator  
Coordination of Field Agents  
Advisory Service Administration  
University of Wisconsin - Ext.  
1815 University Avenue  
Madison, WI 53706  
(608) 262-0644

## APPENDIX C

### SAMPLE FINANCIAL FORMS

1. Profit and Loss Statement
2. Cash Flow Statement (Annual)
3. Cash Flow Statement (Long Term)
4. Net Worth Statement
5. Descriptions of Boat, Gear and Equipment
6. Partial Budget
7. Total Budget

# APPENDIX C - (1) PROFIT AND LOSS STATEMENT

Description of vessel: \_\_\_\_\_, Length, \_\_\_\_\_ beam,  
 \_\_\_\_\_ main engine(s) hp., electronics \_\_\_\_\_

Estimated days fished: \_\_\_\_\_, catch & price by species  
 \_\_\_\_\_ lb (\$/lb); \_\_\_\_\_ lb (\$/lb)

GROSS INCOME FROM FISH SALES \$ \_\_\_\_\_

## VARIABLE EXPENSES

Fuel and oil	_____	
Provisions	_____	
Gear maintenance	_____	
Vessel maintenance	_____	
Ice	_____	
Bait	_____	
Supplies and equipment	_____	
Taxes, fees, assessments	_____	
Transportation	_____	
Crewshare	_____	
Other	_____	
Gross Income From Operations		\$ _____

## FIXED EXPENSES

Insurance	_____	
Vessel maintenance	_____	
Moorage and haul-out	_____	
Warehouse and storage	_____	
Vehicle	_____	
Business administration	_____	
Professional fees	_____	
Travel and entertainment	_____	
Interest	_____	
Depreciation	_____	
Dues and licenses	_____	
Other	_____	
Net Income for Income Tax Reporting		\$ _____

## CASH BALANCE

Net income		\$ _____
Plus: Depreciation		_____
Less: Principal payments	_____	
NET CASH BALANCE (living expenses, taxes, personal debt)		\$ _____

# Appendix C - (2) CASH FLOW STATEMENT (ANNUAL)

	JAN	[month by month through December]	DEC
ENTER: BALANCE FORWARD (from previous month)	_____	_____	_____
<u>INCOME</u>			
+ Fishing sales	_____	_____	_____
+ Sale of equip. or gear	_____	_____	_____
+ Other income	_____	_____	_____
+ Long-term loans	_____	_____	_____
= TOTAL INCOME	_____	_____	_____
<u>EXPENSES</u>			
ENTER: Fuel	_____	_____	_____
+ Provisions	_____	_____	_____
+ Gear maintenance	_____	_____	_____
+ Vessel maintenance	_____	_____	_____
+ Ice	_____	_____	_____
+ Bait	_____	_____	_____
+ Supplies/equipment	_____	_____	_____
+ Taxes/fees/assessments	_____	_____	_____
+ Crewshare	_____	_____	_____
+ Insurance	_____	_____	_____
+ Moorage	_____	_____	_____
+ Warehouse/storage	_____	_____	_____
+ Vehicle	_____	_____	_____
+ Business administration	_____	_____	_____
+ Professional fees	_____	_____	_____
+ Dues/licenses	_____	_____	_____
= TOTAL EXPENSES	_____	_____	_____
ENTER: TOTAL INCOME	_____	_____	_____
- Total Expenses	_____	_____	_____
= CASH AFTER EXPENSES	_____	_____	_____
- Family living expenses	_____	_____	_____
- Capital purchases	_____	_____	_____
- Income taxes	_____	_____	_____
- Long-term loan paymts.	_____	_____	_____
= NET CASH POSITION	_____	_____	_____
+ Short-term borrowing	_____	_____	_____
- Short-term repayment	_____	_____	_____
= CASH BALANCE TO	_____	_____	_____

### APPENDIX C - (3) CASH FLOW STATEMENT (LONG-TERM)

	19__	[year by year for 5 consecu- tive years]	19__
ENTER: BALANCE FORWARD (from previous year)	_____	_____	_____
<u>INCOME</u>			
+ Fishing sales	_____	_____	_____
+ Sale of equip. or gear	_____	_____	_____
+ Other income	_____	_____	_____
+ Long-term loans	_____	_____	_____
= TOTAL INCOME	_____	_____	_____
<u>EXPENSES</u>			
ENTER: Fuel	_____	_____	_____
+ Provisions	_____	_____	_____
+ Gear maintenance	_____	_____	_____
+ Vessel maintenance	_____	_____	_____
+ Ice	_____	_____	_____
+ Bait	_____	_____	_____
+ Supplies/equipment	_____	_____	_____
+ Taxes/fees/assessments	_____	_____	_____
+ Crewshare	_____	_____	_____
+ Insurance	_____	_____	_____
+ Moorage	_____	_____	_____
+ Warehouse/storage	_____	_____	_____
+ Vehicle	_____	_____	_____
+ Business administration	_____	_____	_____
+ Professional fees	_____	_____	_____
+ Dues/licenses	_____	_____	_____
= TOTAL EXPENSES	_____	_____	_____
ENTER: Total income	_____	_____	_____
- Total expenses	_____	_____	_____
= CASH AFTER EXPENSE	_____	_____	_____
- Family living expenses	_____	_____	_____
- Capital purchases	_____	_____	_____
- Income taxes	_____	_____	_____
- Long-term loan payments	_____	_____	_____
= NET CASH POSITION	_____	_____	_____
+ Short-term borrowing	_____	_____	_____
- Short-term repayment	_____	_____	_____
= CASH BALANCE TO CARRY FORWARD	_____	_____	_____

APPENDIX C - (4) NET WORTH STATEMENT

19

FINANCIAL STATEMENT

Name \_\_\_\_\_ Address \_\_\_\_\_

Vessel Name \_\_\_\_\_ Zip \_\_\_\_\_

Assets of Fishing Business

Current Assets

Cash on hand \_\_\_\_\_  
 Checking Account \_\_\_\_\_  
 Receivables \_\_\_\_\_  
 Fish Buyer(s) \_\_\_\_\_  
 Insurance \_\_\_\_\_

Total Current Assets

Fixed Assets

Vessel \_\_\_\_\_  
 Equipment \_\_\_\_\_  
 Gear \_\_\_\_\_  
 Vehicles \_\_\_\_\_  
 Gear Shed \_\_\_\_\_

Total Fixed Assets  
Total Assets

Liabilities of Fishing Business

Current Liabilities

Payables \_\_\_\_\_  
 Gear Supplier \_\_\_\_\_  
 Fish Buyer(s) \_\_\_\_\_  
 Boatyard \_\_\_\_\_

Bank Note \_\_\_\_\_  
 Other Short-term Loans \_\_\_\_\_  
Total Current Liabilities

Long-term Liabilities

Vessel Mortgage \_\_\_\_\_  
 Bank Loan \_\_\_\_\_

Total Long-term Liabilities  
Total Liabilities

Net Worth or Equity  
 (Total assets minus total liabilities)

## APPENDIX C - (5) DESCRIPTION OF BOAT, GEAR AND EQUIPMENT

A detailed description of your presently owned fishing boat or one you are planning to purchase may be required when filing a loan application or when completing a marine survey for U.S. Coast Guard documentation purposes.

### Example 1 Description of New Boats, Gear and Equipment for a Loan Application.

Prepare a detailed description of the new boat and gear you are planning to purchase. List the initial cost as well as anticipated operating costs. Include a physical description of the item and a marine survey report, if available.

A workboat and related equipment used for lobstering might be described as follows:

Description - 36 foot boat; \$45,000 market value; 36 feet by 12 feet; wood hull; 100 h.p. diesel engine; C.B. radio; hydraulic pot hauler; and 250 lobster pots - \$4,000 market value.

Explain how the new boat or gear will assist your fishing operations. Will the new boat reduce your operating costs? Perhaps a new type of fishing gear will reduce the time spent doing a particular task, thereby freeing you to work on other aspects of your fishing operations resulting in a larger catch and increased income.

You should be able to discuss in detail those benefits resulting from the purchase of another boat and new or additional gear. Benefits may include increased landings, reduced expenses or added safety features.

### Example 2 Description of Boat and Equipment in a Marine Survey Report.

#### DOCUMENTATION

Name: YOURBOAT (F/V 3) Official Number: 48765  
Owner: Jon Doe  
Home Port: Gloucester, MA  
Type Vessel: Wood trawler  
Engine: Marine diesel  
Register Dimensions: Length, 67'; Beam, 20.5'; Depth 9.5'  
Tonnage: Gross, 99.93; Net, 58  
Requested by: Owner



For: Insurance  
Attended by: Owner  
Mortgage: Fidelity Lending  
Built in: 1980, Wilmington, DE  
Original Cost: \$102,000.00 not rigged  
Cash Value, present day: \$105,000.00  
Replacement, as is: \$105,000.00  
Replacement, new: \$220,000.00

#### HULL DETAILS AND CONSTRUCTION

Built of wood on a 10" x 12" pine keel; frames, full 2" x 4" bent oak on 15" centers deiled over; bottom planking 1-5/8" x 7" average, side to sheer 1-5/8" x 5", all of cypress; floor timbers 3-1/4" x 12"; deck beams 3 1/2" x 6 1/2" crowned; eight longitudinal stiffeners divided port/starboard with metal knees and breasthooks; sheer clamps 2" x 8", 4" x 4" over; raked stem, square stern, flush deck cambered; bulwarks 27", 7" coverboards; freeing ports sufficient for LOA; two 36" wood cleats divided port/starboard, one 18" steel and one wood aft.

Hull compartmentation: three non-watertight bulkheads, arranged: forepeak, engine and tank space; cargo hold; lazarette; forepeak with deck hatch 24" x 24" on 1 1/2" x 7" coamings, covered; two unused fuel tanks and line stowage; engine/tank space, six diesel fuel tanks; cargo hold insulated w/concrete over styrofoam, central sump; fish hatch 5' x 7' on 3" x 13" coamings; three insulated deck hatches; lazarette, steering by rod, chain to quadrant; deck hatch 20" x 30" on 1 1/2" x 3" coamings, covered; hull penetrations standard; bottom not inspected.

#### DECK ARRANGEMENT AND EQUIPMENT

Deckhouse forward of wood, inside paneled, linoleum cover on decks, three weathertight doors on 9" coamings, drop windows; arranged - wheelhouse, master's quarters with 32V fan, port passage to galley, quarters for two with toilet and basin enclosed (not used); engine room companionway portside aft.

wheelhouse navigation, a 5" Richie compass, a Decca md. 110 0-36 mi. radar, an 8" OMR searchlight, a Nelco auto-fix 500 A/C loran, electric horn, a Wood Freeman md. 11/15 auto pilot and ship's bell; electronics are a Johnson Messenger 323 CB, a Presiden 500 VHF R/T and a Morrow antenna tuner; depthometers are a Gemtronics GT 1707 recording type and a Data Marine depth alarm.

galley messing for four; a Hill Manufacturing refrigerator/freezer; propane gas Hardwick four-burner/oven stove with sail rails and pot clamps; supplied by two 100# LPG cylinders housed and

vented; tubing proper; stainless steel sink with formica drainboards; fresh water supplied from 450 gal. port deck tank, pressured by a Jabsco Water Puppy.

equipment	ground tackle is an 8 1/2" steel sampson post, cleated; a Northill type anchor with roller chute, 100 fathoms of 1" nylon anchor line, no chocks; tackle sufficient for hoisting by the winch; main mast is 10" stepped double A-frame braced with 4" pipe; a 6" lifting boom, two 4 1/2" outriggers, angle steel reinforced; door rack and pin rails of 3" pipe, all of schedule 80 hollow steel; winch is a md. 519 Stroudsburg triple drum with drum guards and cable guides; sufficient trawl nets aboard; running lights comply with CG 169, COLREGS; working light to be corrected.
fire protection	a Rill CO(2) topside and a Bill CO(2) below, recently recharged, along with raw water hosing.
crew hazards	chain guards in place; guard rails of wood and sturdy; sufficient life jackets aboard; first aid available; deck surfaces well painted; ventilation from cowl vents atop deckhouse along with doors and hatches (see Recommendations).

#### MAIN ENGINE AND AUXILIARIES

Propulsion is from a 56D/36P four-blade propellor on a 3 1/2" steel shaft to a 4.5:1 Twin Disc reduction gear driven by a Cat D343TA marine diesel engine rated 365 HP at 1800 RPM; Twin Disc power take-off 99 HP; electric starting by four heavy duty 8V marine batteries; fresh water cooled through keel coolers; exhaust partially insulated, muffler shroud type; a 1 1/4" Jabsco bilge pump and a 32/40V alternator are driven off main; auxiliaries are a Lister 4 HP marine diesel driving a 1 1/4" Jabsco bilge pump and a 1.5 KW Win Power generator; a Jabsco electric auto level bilge pump is aboard; six steel fuel tanks saddle the main, capacity approx. 10,000 gallons; well secured and properly vented; flush deck filler pipes; an 85 gal. steel lube oil tank; Raycor engine filters and proper traps; wiring approved quality; circuit breakers non-fuse type.

#### RECOMMENDATIONS

1. 30" throw rings with 50' line are necessary
2. Green trawl light atop mast.
3. Repair guard rail on port bulwarks.
4. Reinsulate main exhaust.

## SUMMARY

The above vessel is in excellent condition structurally and operationally; housecleaning would enhance the overall appearance. She was last hauled Oct. 1981 for routing inspection, painted, caulked as necessary and rezinced. The main engine was overhauled in 1980 at a cost of \$16,000.00 and the clutch overhauled in Nov. 1980 at a cost of \$4,000.00. All visible timbers and structures are sound and well preserved.

The YOURBOAT is considered seaworthy for her trade, navigation limits commensurate to fuel supply or 200 miles offshore from safe harbor.

# APPENDIX C - (6) PARTIAL BUDGET

How much will the proposed adjustment affect your income?  
Change in income resulting from: \_\_\_\_\_

1. INCREASED INCOMES	Amount
_____	\$ _____
_____	_____
2. REDUCED COSTS	
_____	\$ _____
_____	_____
3. TOTAL INCREASED INCOME AND COSTS	\$ _____
4. REDUCED INCOMES	
_____	\$ _____
_____	_____
5. INCREASED COSTS	
_____	_____
_____	_____
6. TOTAL REDUCED INCOMES AND INCREASED COSTS	\$ _____
7. INCREASED INCOMES AND REDUCED COSTS MINUS REDUCED INCOMES AND INCREASED COSTS (Item 3) -- (Item 6)	\$ _____
8. NET INCOME (Gain or Loss)	\$ _____

1. List the increased incomes resulting from the proposed change.
2. Show all reduced costs that result from undertaking the proposed change. This includes all costs that will not be incurred if the changes are made.
3. Total the increased incomes and reduced costs.
4. List the reduced incomes resulting from the proposed change.
5. List those increased costs resulting from the change.
6. Total the reduced incomes and increased costs.
7. Take the sum of increased incomes and reduced costs (Item 3) and subtract the sum of reduced incomes and increased costs (Item 6).
8. Item 3 minus Item 6 will show either a gain or loss in net income resulting from the proposed change.

# APPENDIX C - (7) TOTAL BUDGET

## 1. TOTAL INCOMES

Fishing Income	\$	_____
Other Income (if applicable)		_____
<u>TOTAL INCOMES</u>		\$ _____

## 2. TOTAL EXPENSES

### VARIABLE EXPENSES

Fuel and oil	_____
Provisions	_____
Gear maintenance	_____
Vessel maintenance	_____
Ice	_____
Bait	_____
Supplies and equipment	_____
Taxes, fees, assessments	_____
Transportation	_____
Crewshare	_____
Other	_____
 TOTAL VARIABLE EXPENSES	 \$ - - - - -

### FIXED EXPENSES

Insurance	_____
Vessel maintenance	_____
Moorage and haul-out	_____
Warehouse and storage	_____
Vehicle	_____
Business administration	_____
Professional fees	_____
Travel and entertainment	_____
Interest	_____
Depreciation	_____
Dues and licenses	_____
Other	_____
 TOTAL FIXED EXPENSES	 \$ _____

TOTAL EXPENSES (Total variable expenses plus total fixed expenses)	\$ _____
--------------------------------------------------------------------------	----------

3. NET INCOME (Total income minus total expenses)	\$ _____
------------------------------------------------------	----------

APPENDIX D  
FISHING RECORD BOOKS

The basic foundation for fishing financial management is having adequate financial data for use when making decisions. Several record-keeping books have been published by Sea Grant Marine Advisory Programs. Following are titles of major record-keeping publications and the institutions responsible for their development. Inquiries should be directed to the Marine Advisory Program Leader at the respective institution (listed in Appendix B).

AKU-H-82002 UNIVERSITY OF ALASKA  
FINANCIAL STATEMENTS AND BUSINESS CALCULATIONS FOR  
COMMERCIAL FISHERMEN: A DO-IT-YOURSELF GUIDE  
WEOSE, CRAOG S.  
97 P. 1982

LSU-COOP EXT SER LOUISIANA STATE UNIVERSITY  
COMMERCIAL FISHERMEN'S RECORD BOOK  
ROBERTS, KENNETH J.  
44 P. 1983

MDU-H-81-02 UNIVERSITY OF MARYLAND  
WATERMEN'S RECORD BOOK  
LEA, DALE; LESSLEY, BILLY; AND WEBSTER, DONALD  
60 P. 1981-82

MDU-H-80-01 UNIVERSITY OF MARYLAND  
WATERMEN'S RECORDKEEPING MANUAL  
LEA, DALE; LESSLEY, BILLY; AND WEBSTER, DONALD  
26 P. 1979-80

MEU-UNIVERSITY OF MAINE  
COMMERCIAL FISHERMEN'S ACCOUNT BOOK  
36 P.

WASHU-H-82-002 UNIVERSITY OF WASHINGTON  
COMMERCIAL FISHERMEN'S RECORDKEEPING AND BUSINESS MANAGEMENT  
MANUAL  
GRANGER, PETE  
72 P. 1982

## APPENDIX E

### FISHERIES FINANCIAL MANAGEMENT BIBLIOGRAPHY

COMPILED AND EDITED  
BY  
MARION CLARKE AND NORM BENDER

This Bibliography is a listing of Commercial Fishing Financial Assistance publications as taken from the Sea Grant Depository at Pell Library. The SGNET System was used to sort, select and compile the data. The "Current Project Section" of SGNET was also searched and publications listed under a separate section of this Bibliography. Additional publications from Sea Grant programs not identified in the initial search are listed under "Miscellaneous Publications" in the Bibliography.

New publications are being developed throughout the year. For the most up-to-date listing of publications contact your local Sea Grant Program or Marine Advisory/Sea Grant Extension Office. The institutional code (AKU, CONN, etc.) listed with each publications refers to a specific Sea Grant program. Inquiries should be addressed to the program leaders listed in Appendix B.

#### CURRENT SEA GRANT PUBLICATIONS AS LISTED IN PELL LIBRARY

##### ALASKA

AKU-H-82-002  
FINANCIAL STATEMENTS AND BUSINESS CALCULATIONS FOR  
COMMERCIAL FISHERMEN A DO-IT-YOURSELF GUIDE  
WIESE CRAIG S  
97 P. 1982

##### CONNECTICUT

CONN-T-81-001  
TAX MANAGEMENT FOR COMMERCIAL FISHERMEN  
BENDER NORMAN K  
22 P. 1981

CONN-T-82-001  
THE CONNECTICUT CHARTER BOAT FLEET; ITS CHARACTERISTICS,  
COSTS AND RETURNS  
THURSLAND MARGARET E; ALTABELLO MARILYN A; BENDER NORMAN K  
37 P. 1982

CONN-T-82-002  
OBTAINING FINANCIAL ASSISTANCE FOR COMMERCIAL FISHING,  
CHARTER AND PARTY BOAT OPERATIONS  
BENDER NORMAN K  
24 P. 1982

CALIFORNIA

CUIMR-TL-80-004  
FORMING A FISHERIES ASSOCIATION  
GAROYAN LEON; TAYLOR STEPHEN  
7 P. 1980

FLORIDA

FLSGP-G-82-007  
ECONOMIC RETURNS IN OPERATING FLORIDA ATLANTIC COAST CHARTER  
AND PARTY BOATS, 1980-81  
TAYLOR KERI H; PROCHASKA FRED J; CATO JAMES C  
15 P. 1982

FLSGP-G1-73-003  
GASOLINE AND SALES TAX EXEMPTIONS AND FUEL ALLOCATION  
PROCEDURES FOR FLORIDA COMMERCIAL FISHERMEN  
CATO  
9 P. 1973

FLSGP-R-76-011  
DOCKSIDE PRICE ANALYSIS IN THE FLORIDA MULLET FISHERY  
CATO  
10 P. 1976  
CITATIONS:  
MARINE FISHERIES REVIEW, 389(06):0004-0013, JUNE 1976

FLSGP-R-77-010  
A STATISTICAL AND BUDGETARY ECONOMIC ANALYSIS OF FLORIDA-  
BASED GULF OF MEXICO RED SNAPPER GROUPER VESSELS BY SIZE AND  
LOCATION, 1974-75  
CATO  
10 P. 1977  
CITATIONS:  
MARINE FISHERIES REVIEW, 39(11):0006-0015, NOV. 1977

FLSGP-T-81-004  
SMALL BOAT LONGLINING FOR SWORDFISH ON FLORIDA'S EAST COAST:  
AN ECONOMIC ANALYSIS  
CATO  
23 P. 1981

FLSGP-T1-75-001  
RECENT TAX DEVELOPMENTS IN COMMERCIAL FISHING (REVISED)  
CATO  
9 P. 1975  
NOTES: SEE FLSGP-T1-74-002 FOR EARLIER EDITION



FLSGP-T1-77-001  
LANDINGS, VALUES, AND PRICES IN COMMERCIAL FISHERIES FOR THE  
FLORIDA NORTHWEST COAST  
CATO  
42 P. 1977

FLSGP-T1-77-002  
LANDINGS, VALUES, AND PRICES IN COMMERCIAL FISHERIES FOR THE  
FLORIDA EAST COAST  
CATO  
61 P. 1977

FLSGP-T1-78-001  
PRODUCTION, COSTS, AND EARNINGS BY BOAT SIZE: FLORIDA  
SPANISH MACKEREL FISHERY  
CATO  
16 P. 1978

FLSGP-U-76-001  
ECONOMICS, BIOLOGY AND FOOD TECHNOLOGY OF MULLET  
CATO  
158 P. 1976  
NOTES: SEE ENTRIES FLSGP-Z-63-003-012 FOR PAPER TITLES AND  
AUTHORS

FLSGP-Z-75-039  
THE GULF OF MEXICO COMMERCIAL AND RECREATIONAL RED SNAPPER-  
GROUPER FISHERY: AN ECONOMIC ANALYSIS OF PRODUCTION,  
MARKETING, AND PRICES  
CATO  
34 P. 1975  
NOTES: IN FLSGP-W-75-001

FLSGP-Z-76-004  
PRODUCTION, PRICES AND MARKETING: AN ECONOMIC ANALYSIS OF  
THE FLORIDA MULLET FISHERY  
CATO  
53 P. 1976  
NOTES: IN FLSGP-U-76-001

#### HAWAII

HAWAU-G-78-009  
FINANCIAL ASSISTANCE PROGRAMS FOR HAWAII'S COMMERCIAL  
FISHERMEN: REVISED  
BALL  
20 P. 1978

HAWAU-T1-72-001  
COSTS AND EARNINGS OF TUNA VESSELS IN HAWAII  
AHSAN ABU EKRAM; BALL JOHN L JR; DAVIDSON JACK R  
22 P. 1972

LOUISIANA

LSU-TL-79-005  
PLANNING TO BUY A SHRIMP BOAT? SOME THINGS TO CONSIDER  
FIRST  
ROBERTS KEN J  
11 P. 1979

LSU-TL-79-007  
FINANCIAL ASPECTS OF LOUISIANA SHRIMP VESSELS, 1978  
ROBERTS KENNETH J; SASS MARY ELLEN  
9 P. 1979

LSU-TL-80-003  
LOUISIANA'S INSHORE SHRIMP FISHERY  
ROBERTS  
12 P. 1980

LSU-TL-81-001  
COMMERCIAL FISHING INDUSTRY LICENSEES IN LOUISIANA, 1976-  
1980  
ROBERTS  
14 P. 1981

LSU-TL-82-001  
ECONOMIC ELEMENTS OF COMMERCIAL CRABBING IN LAKE  
PONTCHARTRAIN AND LAKE BORGNE  
ROBERTS KENNETH J; THOMPSON MARK E  
19 P. 1982

MISSISSIPPI-ALABAMA

MASGC-Z-80-007  
MARKETING  
SMITH  
4 P. 1980  
NOTES; IN MASGC-W-8-002

MARYLAND

MDU-G1-76-001  
FINANCIAL ASSISTANCE FOR WATERMEN  
BENDER NORMAN K  
2 P. 1976

MDU-G1-76-002  
DEVELOPING A WATERMEN'S CREDIT UNION  
BENDER NORMAN K  
2 P. 1976

MDU-G1-76-003  
APPLYING FOR A FISHING LOAN  
BENDER NORMAN K  
3 P. 1976

MDU-G1-77-001  
TAX LAW CHANGES AFFECT FISHING INDUSTRY  
BENDER NORMAN K  
2 P. 1977

MDU-G1-77-002  
RETIREMENT PLANS - PREPARING FOR THE FUTURE  
BENDER NORMAN K  
2 P. 1977

MDU-G1-77-003  
FISHERY COOPERATIVES  
BENDER NORMAN K  
4 P. 1977

MDU-G1-78-001  
BUDGETING IN A MARINE BUSINESS  
BENDER NORMAN K; LESSLEY BILLY; V HARD  
4 P. 1978

#### MAINE

MEU-T1-75-001  
MAXIMIZING YOUR AFTER-TAX INCOME  
SMITH FREDERICK J  
24 P. 1975  
1

#### MIAMI

MIAU-Z-73-023  
SELLING SEAFOOD SUCCESSFULLY - A CASE IN POINT  
GILLESPIE SAMUEL M; SCHWARTZ WILLIAM B  
5 P. 1973  
NOTES: IN MIAU-W-73-001 PP. 43-47

MIAU-Z-75-016  
GEAR AND ECONOMIC EFFICIENCY RESULTS OF A SEA GRANT TWIN-  
TRAWL DEMONSTRATION IN SOUTH CAROLINA  
ROBERTS KENNETH J; RHODES RAYMOND J  
8 P. 1975  
NOTES: IN MIAU-W-75-001 PP. 65-72 SAME AS SCMRC R-75-004

MIAU-Z-77-017  
ECONOMIC ANALYSES OF PRODUCTION AND MARKETING OF FLORIDA  
EAST COAST KING AND SPANISH MACKEREL  
PROCHASKA FREDERICK J; CATO JAMES C  
23 P. 1977  
NOTES: IN MIAU-W-77-001 PP. 97-119

---

1  
Sea Grant Program, University of Miami, Rosentiel School of  
Marine and Atmospheric Science, 4600 Rickenbacker Causeway,  
Miami, Florida 33149

MINNESOTA

MINNU-GI-81-002  
BROCHURES TO BOOST BUSINESS  
MACK  
4 P. 1981

MASSACHUSETTS

MIT-Z-77-006  
FISHING AND THE FISHING INDUSTRY  
LISTON JOHN; SMITH LYNWOOD  
60 P. 1977  
NOTES: IN NAS-W-74-001 PP. 143-202  
IN NAS-W-74-001 PP. 133-144

NORTH CAROLINA

NCU-R-80-008  
ECONOMIC TRADE-OFFS AND THE NORTH CAROLINA SHRIMP FISHERY  
WATERS JAMES R; EASLEY J E JR; DANIELSON LEON E  
6 P. 1980

NCU-R-82-005  
PROPERTY RIGHTS IN SHELLFISH RELAY: MANAGING  
FISHERIES FOR HIGHER ECONOMIC RETURNS  
EASLEY J E JR 8 P. 1982.  
CITATIONS: NORTH AMERICAN JOURNAL OF FISHERIES  
MANAGEMENT, 4( ):0343-0350, 1982

NCU-77-010  
AN ECONOMIC ANALYSIS OF EEL FARMING IN NORTH CAROLINA  
EASLEY J E JR; FREUND J N  
21 P. 1977

NCU-5-81-001  
SHELLFISH RELAY: A PRELIMINARY REVIEW OF POTENTIAL GAINS  
FROM ALTERNATIVE PROPERTY RIGHTS IN SOUTHEASTERN NORTH  
CAROLINA  
EASLEY  
15 P. 1981

NEW YORK

NYEXT-N-82-001  
NEW YORK COMMERCIAL FISHERIES UPDATE  
SCOTTI JOHN; SMITH CHRISTOPHER  
1982  
NOTES: SEE COPIES FOR INDIVIDUAL ARTICLES PUBLISHED MONTHLY

NYEXT-TL-82-001  
MARKETING THE FISH YOU CATCH  
CONRAD JON M  
6 P. 1982

NYSOI-T-76-009  
THE INSTITUTIONAL STRUCTURE OF NEW YORK STATE'S CLAM  
INDUSTRY  
BENDER NORMAN K  
15 P. 1976

OREGON

ORESUG-72-001  
INCORPORATING A FISHING BUSINESS  
SMITH FREDERICK J  
8 P. 1972

ORESUG-72-002  
SOME CHARACTERISTICS OF OREGON FISHERMEN  
SMITH FREDERICK J  
4 P. 1972

ORESUG-72-008  
DIVERSITY - CHARACTERISTICS OF OREGON'S YEAR-ROUND FISHERY  
ROBERTS KENNETH J  
2 P. 1972

ORESUG-72-010  
ORGANIZING AND OPERATING A FISHERY COOPERATIVE  
SMITH FREDERICK J  
43 P. 1972  
NOTES: SEE ENTRIES ORESU-Z-72-011 - 015 FOR INDIVIDUAL  
SECTIONS

ORESUG-73-003  
FISHING BUSINESS MANAGEMENT AND ECONOMIC INFORMATION  
SMITH FREDERICK J  
6 P. 1973  
NOTES: SEE ORESUG-70-003 FOR EARLIER ON

ORESUG-73-005  
UNDERSTANDING AND USING MARINE ECONOMICS DATA SHEETS  
SMITH FREDERICK J  
4 P. 1973

ORESUG-73-008  
HOW TO CALCULATE PROFIT IN A FISHING BUSINESS  
SMITH FREDERICK J  
2 P. 1973

ORESUG-79-003  
OREGON'S SEAFOOD INDUSTRY  
ROMPA WILLIAM J; SMITH FREDERICK; JOHN MILES; STANLEY D  
14 P. 1970

ORESU-G1-70-001  
 PRICING AND MARKETING OREGON SEAFOODS  
 SMITH FREDERICK J  
 4 P. 1970

ORESU-G1-71-001  
 COMMERCIAL SEAFOOD INDUSTRY OF OREGON: A COMPARISON WITH  
 OTHER REGIONS OF THE UNITED STATES  
 RETTIG R BRUCE; ROBERTS KENNETH J  
 11 P. 1971

ORESU-G1-71-002  
 ECONOMIC CONDITION OF SELECTED PACIFIC NORTHWEST SEAFOOD  
 FIRMS  
 SMITH FREDERICK J  
 14 P. 1971

ORESU-G1-76-001  
 ANALYZING A NEW MARINE BUSINESS  
 SMITH FREDERICK JOHN  
 8 P. 1976

ORESU-G1-76-002  
 THE BASICS OF DEPRECIATION  
 BALL JOHN L JR  
 4 P. 1976

ORESU-G1-76-003  
 HOW TO TAKE THE INVESTMENT CREDIT  
 BALL JOHN L JR  
 2 P. 1976

ORESU-G1-76-005  
 THE TAX ASPECTS OF DISPOSING OF BUSINESS ASSETS  
 BALL JOHN L JR  
 2 P. 1976

ORESU-G1-78-001  
 WHAT ARE SALMON WORTH?  
 SMITH FREDERICK JOHN  
 4 P. 1978

ORESU-G1-79-005  
 LORAN-C RECEIVERS: FINANCIAL CONSIDERATIONS OF CONVERSION  
 SMITH FREDERICK JOHN  
 4 P. 1979

ORESU-X2-75-015  
 EFFICIENCY IN OREGON'S COMMERCIAL SALMON FISHERIES: A  
 HISTORICAL PERSPECTIVE  
 HATLEY THOMAS ALRED  
 1 P. 1975

ORES-U-Z-75-020

SEAFOOD MARKET STRUCTURE AND PERFORMANCE

JOHNSTON RICHARD S; SMITH FREDERICK JOHN

5 P. 1975

NOTES: IN ORES-U-P-75-001 PP. 76-77 ALSO IN ORES-U-P 75-002  
PP. 97-99

ORES-U-Z-75-042

MARINE ECONOMICS ADVISORY EDUCATION

SMITH FREDERICK JOHN

5 P. 1975

NOTES: IN ORES-U-P-75-001 PP. 120-121 ALSO IN ORES-U-P 75-002  
PP. 201-20

ORES-U-Z-76-015

SEAFOOD MARKET STRUCTURE AND PERFORMANCE

JOHNSON RICHARD S, SMITH FREDERICK J

6 P. 1978

NOTES: IN ORES-U-P-76-001 PP. 68-69. ALSO IN  
ORES-U-P 76-002 PP. 92-95

OREXT-G-82-001

MICROCOMPUTERS AND PROGRAMMABLE CALCULATORS IN YOUR MARINE  
BUSINESS

SMITH FREDERICK J

2 P. 1982

OREXT-G1-79-001

MAKING GOOD USE OF YOUR MONEY

SMITH FREDERICK J

4 P. 1979

#### RHODE ISLAND

RIU-Z-70-001

TAX ADVANTAGES FOR FISHERMEN

SMITH FREDERICK J

5 P. 1970

NOTES: IN RIU-W-70-001 PP. 2-6

#### SOUTH CAROLINA

SCMRC-G2-75-001

DATA SHEET NO. 1 - 50 FOOT WOODEN DOUBLE-RIG SHRIMP TRAWLER,  
WITH 165 HP DIESEL ENGINE, RADAR, FISH RECORDER VHF AND CB  
RADIOS

ROBERTS KENNETH J

2 P. 1975

SCMRC-G2-75-002

DATA SHEET NO. 2 - 55 FOOT WOODEN DOUBLE-RIG SHRIMP TRAWLER,  
WITH 240 HP DIESEL ENGINE, RADAR, FISH RECORDER, VHF AND  
CB RADIOS  
ROBERTS KENNETH J  
2 P. 1975

SCMRC-G2-75-003

DATA SHEET NO. 3 - 64 FOOT WOODEN DOUBLE-RIG SHRIMP TRAWLER,  
WITH 250 HP DIESEL ENGINE, RADAR, RECORDING FATHOMETER, VHF  
AND CB RADIOS  
ROBERTS KENNETH J  
2 P. 1975

SCMRC-G2-75-004

DATA SHEET NO. 4 - 70 FOOT WOODEN, DOUBLE-RIG  
SHRIMP TRAWLER, WITH 350 HP DIESEL ENGINE, RADAR,  
FISH RECORDER, VHF AND CB  
RADIOS, LORAN  
ROBERTS KENNETH J  
2 P. 1975.

SCMRC-R-75-004

GEAR AND ECONOMIC EFFICIENCY RESULTS OF A SEA GRANT TWIN-  
TRAWL DEMONSTRATION IN SOUTH CAROLINA  
ROBERTS KENNETH J; RHODES RAYMOND J  
8 P. 1975  
NOTES: SAME AS MIAU-Z-75-016

SCMRC-R-77-001

STATUS REPORT ON THE COMMERCIAL SNAPPER-GROUPER FISHERIES OF  
SOUTH CAROLINA  
ULRICH GLENN F; RHODES RAYMOND J; ROBERTS KENNETH  
23 P. 1977

#### TEXAS

TAMU-G4-74-002

SO YOU WANT TO MAKE A LOAN  
SMITH M RAY  
4 P. 1974

TAMU-T-80-004

MARKETING ALTERNATIVES FOR FISHERMEN  
NICHOLS JOHN POWELL; CATO JAMES C; LESSER WILLIAM; OLSEN  
FRED; PROCHASKA FREDERICK J; SMITH FREDERICK J; WILSON JAMES  
A  
46 P. 1980

TAMU-Z-76-036

AN ECONOMIC ANALYSIS OF EFFORT AND YIELD IN THE FLORIDA  
SPINY LOBSTER INDUSTRY WITH MANAGEMENT CONSIDERATIONS  
PROCHASKA FREDERICK J  
15 P. 1976



TAMU-Z-77-035

ECONOMIC POTENTIAL FOR PRODUCING AND MARKETING UNDERUTILIZED  
FISH: LAKE OKEECHOBEE SCALE AND ROUGH FISH  
CATO JAMES C; PROCHASKA FREDERICK J  
14 P. 1977  
NOTES: IN TAMU-W-77-002 PP. 262-275

TAMU-Z-77-036

ECONOMETRIC FORECASTS FOR THE UNITED STATES TUNA INDUSTRY  
BALLARD KENNETH; BLOMO VITO J  
26 P. 1977  
NOTES: IN TAMU-W-77-002 PP. 276-301

TAMU-Z-82-012

FORECASTING EXVESSEL SHRIMP PRICES FOR THE NORTHERN GULF  
THOMPSON MARKE E; ROBERTS KENNETH J  
26 P. 1982  
NOTES: IN TAMU-W-82-001 PP. 113-138

#### WASHINGTON

WASHU-Z-74-086

MARINE ADVISORY AND INDUSTRY DEVELOP A NEW FISHERY: THE  
CASE OF SOUTH CAROLINA'S UGLY DUCKLINGS OF THE SEA  
ROBERTS KENNETH J  
4 P. 1974  
NOTES: IN WASHU-W-74-001 PP. 187-190

WASHU-H-82-002

COMMERCIAL FISHERMEN'S RECORDKEEPING AND BUSINESS MANAGEMENT  
MANUAL  
GRANGER PETE  
72 P. 1982  
NATIONAL FISHERIES ASSOCIATION PROCEEDINGS, 64 ( ): 0053-  
0057, 1974

#### WOODS HOLE

WHOI-R-77-001

FISHING BOAT INCOME, CAPITAL AND LABOR: A DISTRIBUTIONAL  
STUDY OF A NEW ENGLAND PORT  
SMITH LEAH J  
12 P. 1977

WHOI-T-79-008

NEW ENGLAND FISHING, PROCESSING AND DISTRIBUTION  
PERSON SUSAN B; SMITH LEAH J  
73 P. 1979

#### MISCELLANEOUS PUBLICATIONS

"HOW TO CALCULATE PROFIT IN A FISING BUSINESS," SG 29, OREGON  
STATE UNIVERSITY EXTENSION/SEA GRANT PROGRAM, SINGLE COPY  
FREE.

"MAKING GOOD USE OF YOUR MONEY," SG 59, OREGON STATE UNIVERSITY EXTENSION/SEA GRANT PROGRAM, SINGLE COPY FREE.

"INCORPORATING A FISHING BUSINESS," SG 11, OREGON STATE UNIVERSITY EXTENSION/SEA GRANT PROGRAM, 25 CENTS PER COPY.

"COMMERCIAL FISHERMAN'S GUIDE TO MARINE INSURANCE AND LAW," UNIVERSITY OF RHODE ISLAND, DENNIS NIXON.

"ANALYZING A NEW MARINE BUSINESS," SG 34, OREGON STATE UNIVERSITY EXTENSION/SEA GRANT PROGRAM, 75 CENTS PER COPY.

"MICROCOMPUTERS AND PROGRAMMABLE CALCULATORS IN YOUR MARINE BUSINESS," SG 71, OREGON STATE UNIVERSITY EXTENSION/SEA GRANT PROGRAM, 25 CENTS PER COPY.

FISHING VESSEL CAPITAL CONSTRUCTION FUND," NEMAS; NEW YORK STATE SEA GRANT EXTENSION PROGRAM AND UNIVERSITY OF CONNECTICUT.

"40 FOOT CHARTER BOAT - EASTERN CONNECTICUT," FS 2, UNIVERSITY OF CONNECTICUT.

"SEA GRANT MARINE EQUIPMENT AND MECHANICS ACQUISITION," NEW YORK STATE SEA GRANT EXTENSION PROGRAM.

"NEW YORK COMMERCIAL FISHERIES UPDATE ON THE SUBJECT OF MARINE FISH INSURANCE FOR FISHING VESSEL OWNERS," NEW YORK STATE SEA GRANT EXTENSION PROGRAM, JOHN SCOTTI.

"MARKETING THE FISH YOU CATCH," NEW YORK STATE SEA GRANT EXTENSION PROGRAM.

"DIESELS FOR LOUISIANA SKIFFS," NORTH CAROLINA STATE UNIVERSITY EXTENSION ECONOMICS AND BUSINESS, KEN ROBERTS.

A FORTHCOMING PUB. BY FRED LYDA (GA) ON MODIFYING A SHRIMP BOAT FOR LONGLINING.

"LEASING BOATS AND MARINE EQUIPMENT," UNIVERSITY OF MARYLAND, DAVID SWARTZ.

"QUESTIONABLE - HYDRAULICS: HANDY HELPMATE ON SMALL FISHING BOATS," NORTH CAROLINA STATE UNIVERSITY EXTENSION ECONOMICS AND BUSINESS.

"SMALL BOAT LONGLINING FOR SWORDFISH ON FLORIDA'S EAST COAST: AN ECONOMIC ANALYSIS," UNIVERSITY OF FLORIDA, CATO & LAWLOR.

"BORROWING FOR A BOAT? PERSONAL FINANCIAL DATA REQUIRED BY BANKS," NORTH CAROLINA STATE UNIVERSITY EXTENSION ECONOMICS AND BUSINESS.

"CUTTING FUEL COSTS: ALTERNATIVES FOR COMMERCIAL FISHERMEN,"  
TEXAS A&M UNIVERSITY SEA GRANT COLLEGE PROGRAM.

"SAFETY AT SEA: A GUIDE FOR FISHING VESSEL OWNERS AND  
OPERATORS," TEXAS A&M UNIVERSITY SEA GRANT COLLEGE PROGRAM.

